Data Sheet 2024

【Third-Party Assurance】

For data of indicators related to climate change and environment protection from April 1, 2023 to March 31, 2024, and occupational safety from January 1, 2023 to December 31, 2023, we have received the third-party assurance by KPMG AZSA Sustainability Co., Ltd. to ensure the reliability and transparency of Data Sheet 2024. The indicators subject to assurance are marked with the "★" symbols.

【Data of Indicators Related to Environment】

For details, please refer to "Calculation Methods for Data of Indicators Related to Environment" starting on P39.

Environment

Basic Policy

In keeping with our corporate philosophy, we at the Kaneka Group will contribute to realizing sustainable development and the enrichment of society by conserving resources and reducing environmental impacts at each stage of the entire product lifecycle.

Environmental Management Systems

■ ISO 14001 Certification

Manufacturing Sites and Group Companies	Registration No.
Takasago Manufacturing Site	JCQA-E-0105
Osaka Manufacturing Site	JCQA-E-0053
Shiga Manufacturing Site	ISO 14001 – 0077396
Kashima Manufacturing Site	JCQA-E-0054
Vienex Corporation	JSAE1511
Osaka Synthetic Chemical Laboratories, Inc.	JCQA-E-0343
Kaneka Solartech Corporation	JQA-EM6704
Kanto Styrene Co., Ltd.	JEN-2024.0
Sanvic Inc.	JMAQA-E841
Showa Kaseikogyo Co., Ltd. Hanyu Headquarters Factory	E0062
Cemedine Co., Ltd. Ibaraki Plant, Mie Plant	JCQA-E-0366
Cemedine Co., Ltd. Kinuura Plant	497791UM15
Tatsuta Chemical Co., Ltd. Koga Plant	E2271
Tochigi Kaneka Co., Ltd.	E2163
Kaneka Belgium N.V.	97 EMS 002h
Kaneka (Malaysia) Sdn. Bhd.	EMS00400
Kaneka Innovative Fibers Sdn. Bhd.	EMS00400
Kaneka Eperan Sdn. Bhd.	EMS00400
Kaneka Paste Polymers Sdn. Bhd.	EMS00400
Kaneka Apical Malaysia Sdn. Bhd.	EMS00400
Kaneka MS Malaysia Sdn. Bhd.	EMS00400
Kaneka (Thailand) Co., Ltd.	EMS727351

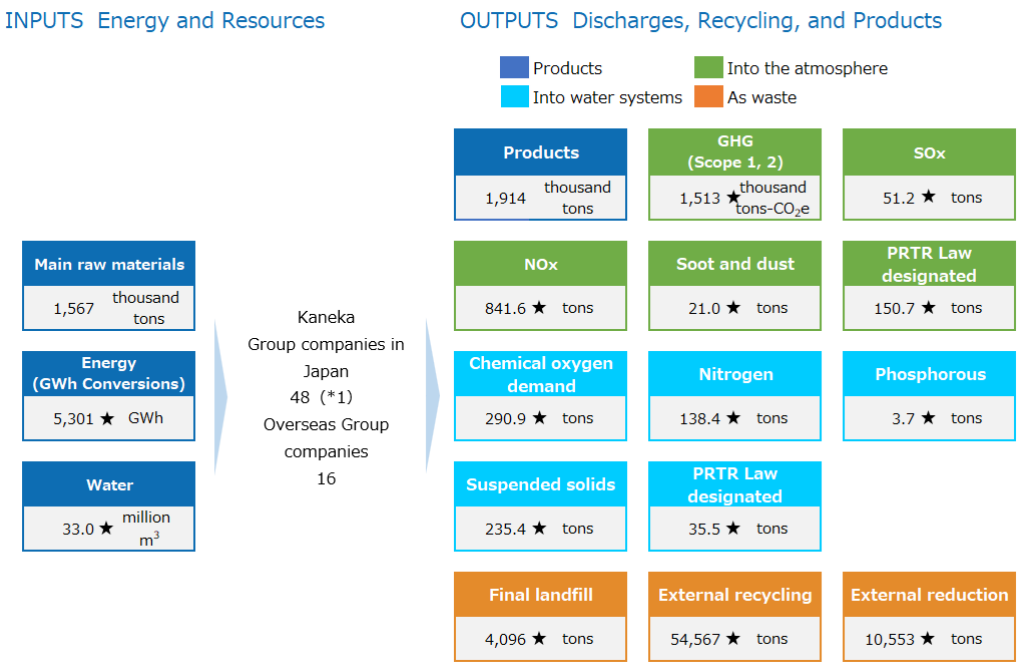
■ Eco-Action 21 Certification

Group Company		Certification and Registration No.
OLED Aomori Co., Ltd.		0010329
Kaneka Kanto Styrol Co., Ltd.		0004259
Kaneka Sun Spice Corporation		0003556
Kaneka Chubu Styrol Co., Ltd.		0006600
Kaneka Nishinippon Styrol Co., Ltd.	Headquarters, Saga Plant, Kagoshima Plant, Nagasaki Plant, and Hiroshima Plant	0003949
Kaneka Foods Manufacturing Corporation		0003491
Kaneka Foam Plastics Co., Ltd. Moka Plant		0003247
Kaneka Hokkaido Styrol Co., Ltd.		0001805
Kaneka Medix Corporation		0001893
Kyushu Kanelite Co., Ltd.		0001637
Kochi Styrol Co., Ltd.		0011039
Taiyo Yushi Corporation		0003575
Tokyo Kaneka Foods Manufacturing Corporation		0003473
Nagashima Shokuhin Co., Ltd.		0003093
Hokkaido Kanelite Co., Ltd.		0001905

Environmental Performance

Material Balance

■ Fiscal 2023 results



*1 42 Kaneka consolidated subsidiaries in Japan and six non-consolidated subsidiaries. Consolidated subsidiaries in Japan do not include subsidiaries of Cemedine Co., Ltd.

Note: For details, please refer to "Calculation Methods for Data of Indicators Related to Environment" starting on P39.

Environmental Accounting

■ Environmental Costs (Investments, Expenditures) (Millions of yen)

Cost Classifications	Main Efforts	Fiscal 2021		Fiscal 2022		Fiscal 2023	
		Invest-ments	Expen-ditures	Invest-ments	Expen-ditures	Invest-ments	Expen-ditures
Business Area		3,987	6,048	893	6,350	1,147	6,696
1. Pollution Prevention	Air and water pollution prevention	3,737	3,881	835	4,124	1,073	4,283
2. Environmental Conservation	Addressing climate change and energy saving	-	-	-	-	-	-
3. Resource Recycling	Waste processing, recycling, and reduction	250	2,167	59	2,227	74	2,412
Upstream and Downstream	Product recycling, collection, and processing	0	25	0	24	0	17
Management Activities	Environmental education for employees and environmental impact monitoring and measurement	1	419	0	423	2	388
Research and Development	Research and development of products contributing to environmental conservation	-	9,219	-	11,876	-	12,387
Social Activities	Greening, beautification, and disclosure of environmental information	0	107	0	84	2	74
Environmental Damage	Payment of sulfur oxide emission charges	0	2	0	9	0	9
Total		3,988	15,820	893	18,766	1,151	19,570

We calculate these costs and effects based on the 2005 edition of the Environmental Accounting Guidelines by Japan's Ministry of the Environment with Kaneka's own unique way of thinking, targeting all parent manufacturing sites and 30 Group companies in Japan (manufacturing companies).

Note: Figures do not include global environment conservation investments and expenditures and research and development investments.

Amounts reported here may not fully match, due to rounding.

■ Quantitative Impact of Environmental Conservation Efforts

Category	Initiatives	Items	Units	Fiscal 2021	Fiscal 2022	Fiscal 2023
Pollution Prevention	Atmospheric and water discharges of hazardous substances	SOx emissions	Tons	85.5	81.6	49.7
		NOx emissions	Tons	876.3	786.7	699.6
		Chemical oxygen demand	Tons	236.2	228.7	236.9
		PRTR Law–designated chemical emissions	Tons	166.0	168.6	186.1
Environment	Greenhouse gas emissions	GHG emissions	Thousand tons-CO_2e	1,219.6	1,095.3	1,236.2
	Energy consumptions	GWh Conversions	GWh	4,247	3,802	4,287
Resource Recycling	Final landfill	Landfill	Tons	350.2	279.9	308.0
	External recycling	Amounts recycled	Tons	48,906.8	47,390.1	49,055.5

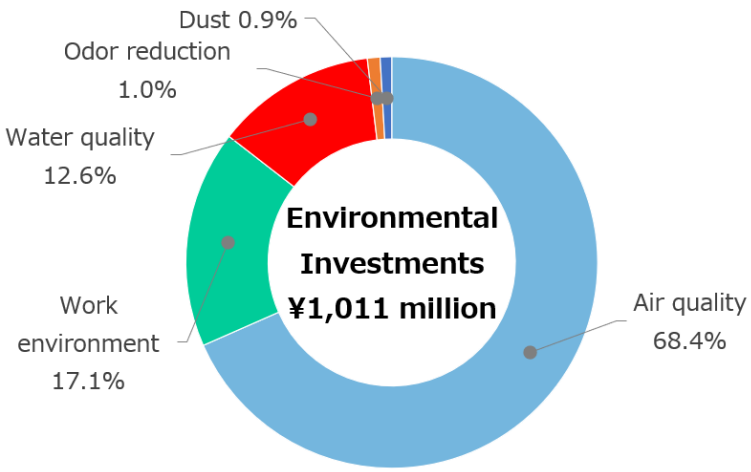
■ Economic Impacts of Environmental Measures (Millions of yen)

Measures	Fiscal 2021	Fiscal 2022	Fiscal 2023
Revenue from recycling	184	198	230
Cost reductions by better resource efficiency (output per unit of input)	-19	-134	799
Waste disposal cost reductions by recycling	448	306	200
Cost reductions by energy conservation	422	84	364
Total	1,035	453	1,593

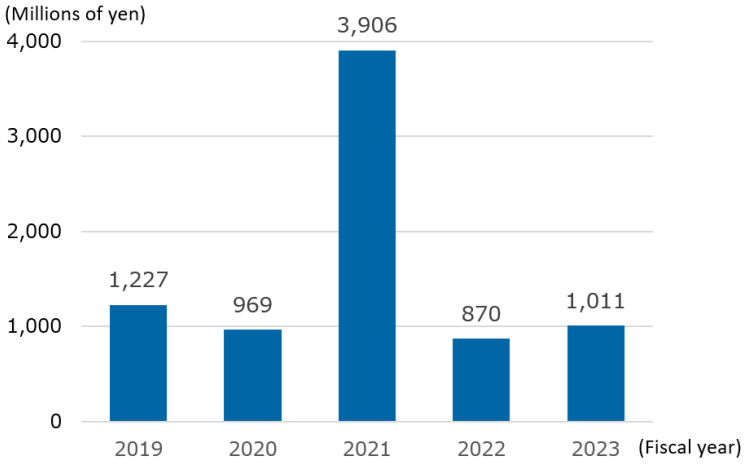
Note: Amounts reported here may not fully match, due to rounding.

Environmental Investments (Kaneka)

■ Environmental Investments in Fiscal 2023

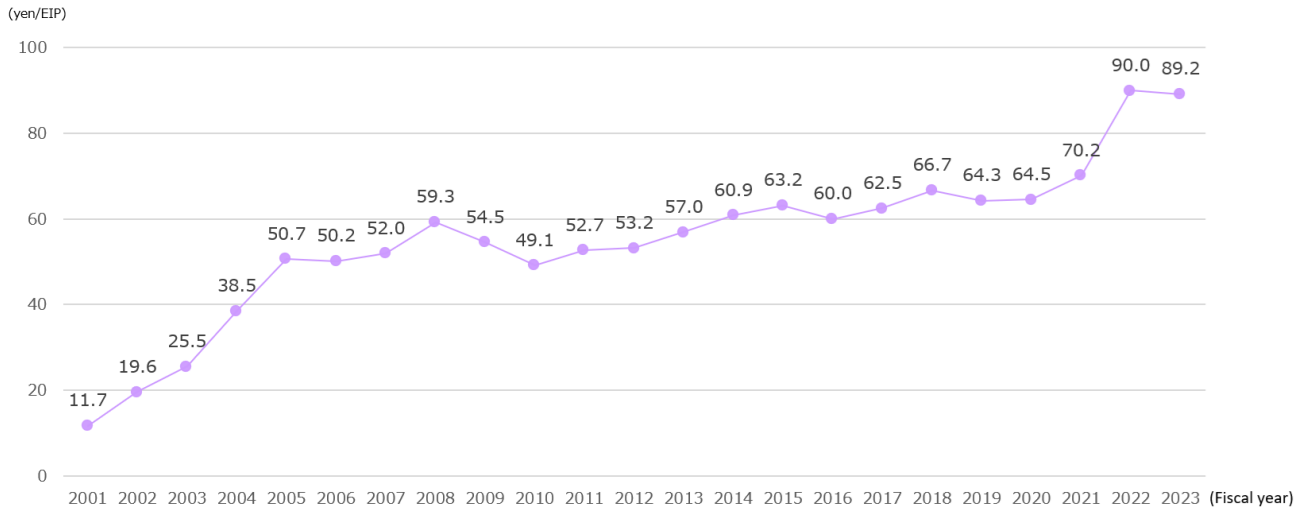


■ Cumulative Environmental Investments

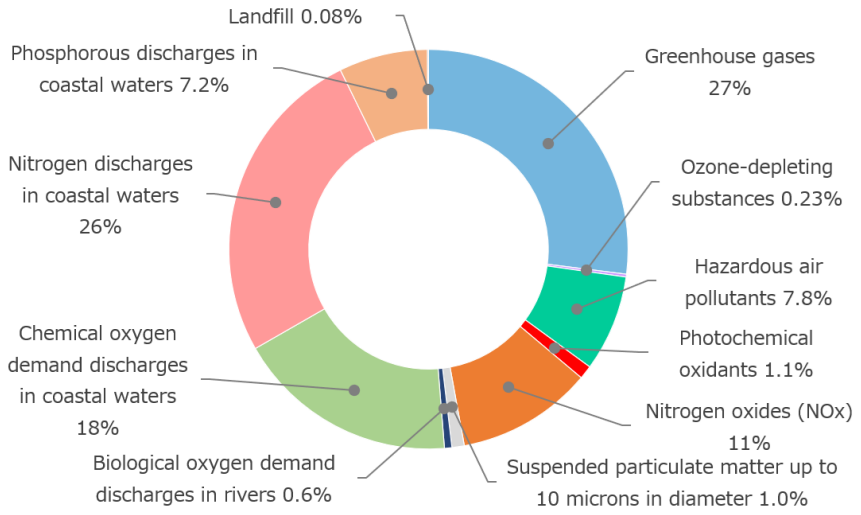


Environment Efficiency (Kaneka)

■ Environment Efficiency



■ Details of Total Environmental Impact



Fiscal Year	Net Sales (million yen)	Environmental Impact (100 million EIPs)	Environmental Efficiency (yen/EIP)
2021	334,675	47.7	70.2
2022	369,172	41.0	90.0
2023	366,950	41.1	89.2

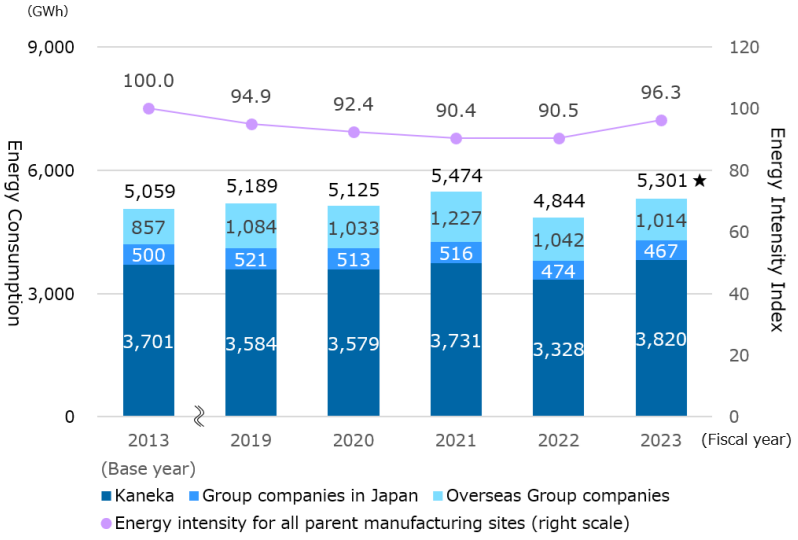
Climate Change Initiatives

■ Targets and Performance of Energy Conservation Efforts at All Parent Manufacturing Sites

Fiscal 2023 target		Fiscal 2023 performance	Evaluation
Energy intensity index	Average annual reduction of 1% or more	96.3 (all parent manufacturing sites) (106.3% year-on-year change) Five-year average change rate 100.4%	× ×
CO_2 emission intensity index	Average annual reduction of 1% or more (fixed emissions factor) Estimated fiscal 2023 performance 90.4 (fiscal 2030 target 84.3)	83.3 (all parent manufacturing sites)	◎

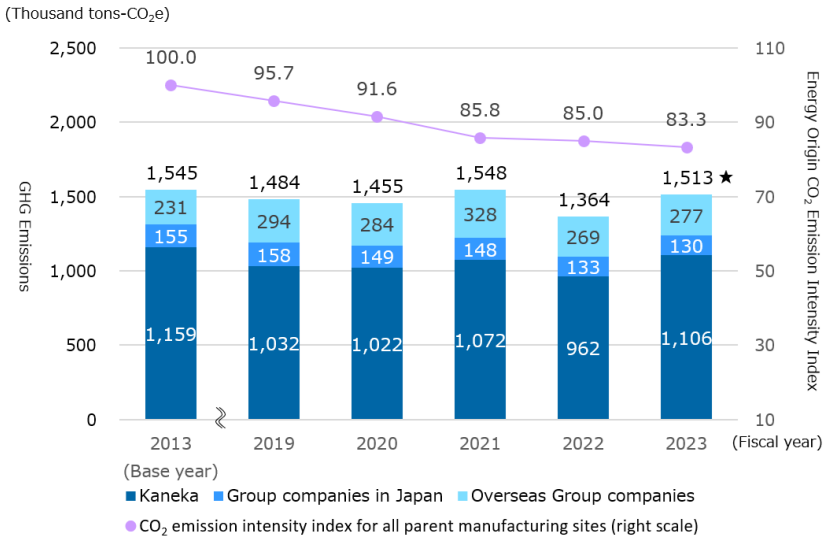
Energy Conservation Efforts

■ Energy Consumptions and Energy Intensity Index

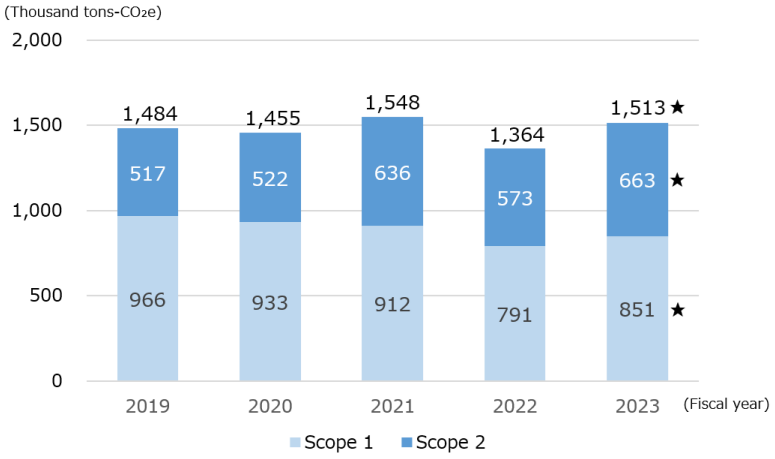


Initiatives to Reduce CO_2 Emission Intensity

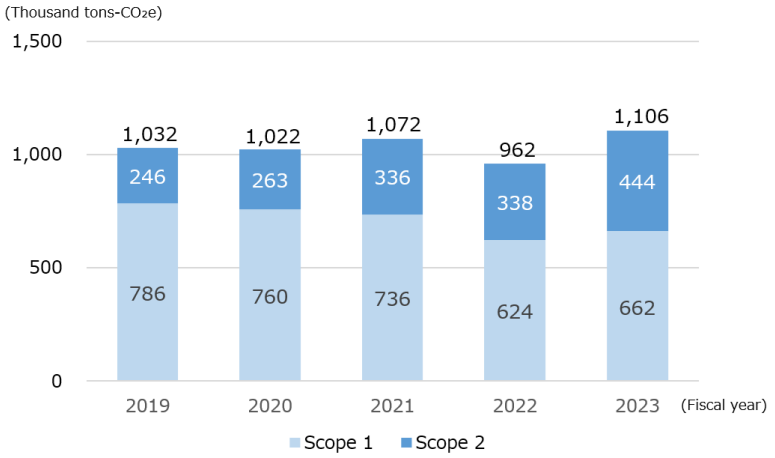
■ GHG Emissions and Energy Origin CO_2 Emission Intensity Index



■ Scope 1 and 2 Emissions (Kaneka Group)



■ Scope 1 and 2 Emissions (Kaneka)



■ Kaneka Group Scope 1 and 2 Emissions (Fiscal 2023)

(Thousand tons-CO_2e/year)

	Kaneka	Group companies in Japan	Overseas Group companies	Total
Scope 1 direct emissions(*1)	662	64	125	851 ★
Scope 2 indirect emissions from purchased or acquired electricity, steam, heat and cooling (*2)	444	66	152	663 ★
Total	1,106	130	277	1,513 ★

Note: Amounts reported here may not fully match, due to rounding.

*1 Non-energy CO_2 emissions and CO_2-equivalent of methane, N_2O, and NF_3 emissions are included.

*2 Scope 2 emissions calculated using the location-based method were 464 thousand tons CO_2e for Kaneka and 69 thousand tons CO_2e for Group companies in Japan. For overseas Group companies, Scope 2 emissions were the same calculated using location-based and market-based methods.

GHG Emissions from Business Activities throughout the Supply Chain

■ Kaneka Group Scope 3 Emissions Calculated by Category (Fiscal 2023) (Thousand tons-CO2e/year)

Category		Kaneka	Group companies in Japan	Overseas Group companies	Total
1	Purchased goods/services	1,817.0★	－	－	1,817.0
2	Capital goods	49.3	22.7	29.3	101.3
3	Fuel-and energy-related activities not included in Scope 1 or Scope 2	159.1★	24.9	78.9	262.9
4	Upstream transportation and distribution	20.9★	－	－	20.9
5	Waste generated in operations (*3)	5.2★	10.1	7.7	23.0
6	Business travel	7.3	0.5	0.4	8.2
7	Employee commuting	1.3	1.5	1.2	4.1
8	Upstream leased assets	0.0	－	－	0.0
9	Downstream transportation and distribution	(*4)	(*4)	(*4)	(*4)
10	Processing of sold products	(*4)	(*4)	(*4)	(*4)
11	Use of sold products	(*5)	(*5)	(*5)	(*5)
12	End-of-life treatment of sold products	539.3	104.6	280.3 (*6)	924.2
13	Downstream leased assets	0.02	－	－	0.02
14	Franchises	(*7)	－	－	－
15	Investments	406.3	－	－	406.3
Total of Scope 3 emissions		3,005.8	164.3	397.8	3,567.9

Note: Amounts reported here may not fully match, due to rounding. A dash ("－") in the table indicates that data that has not been calculated.

*3 CO_2 emissions from waste transportation are not included in category 5 but are calculated in category 4.

*4 GHG emissions for this category were not calculated because we were unable to determine a rational calculation method due to the high percentage of intermediate products.

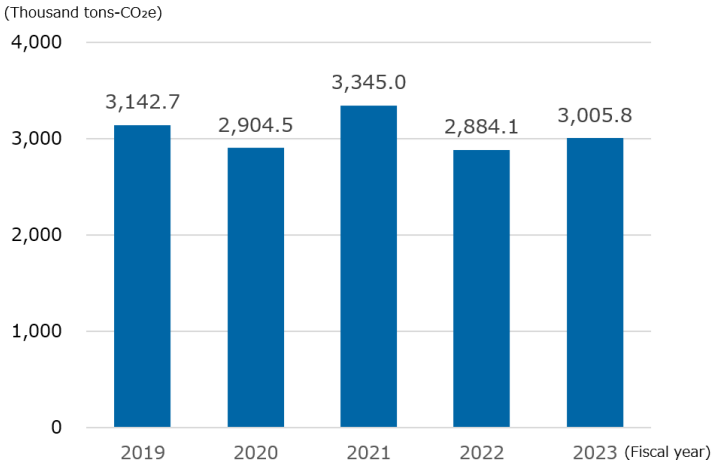
*5 Some products generate emissions when used. However, since it was confirmed that this represented less than 0.1% of total Scope 3 emissions, such emissions were excluded from the calculation range.

*6 Kaneka Medical Vietnam Co., Ltd. is not included in the calculation because its products have not been converted to weight.

*7 GHG emissions for this category were not calculated because we have no franchise stores.

■ Scope 3 Emissions (Kaneka) (*8)

*8 Actual Category 5 figures for and prior to 2022 have been revised following a revision of the waste plastic processing classification and the deduction of CO_2 emissions related to waste transportation over previous fiscal years.



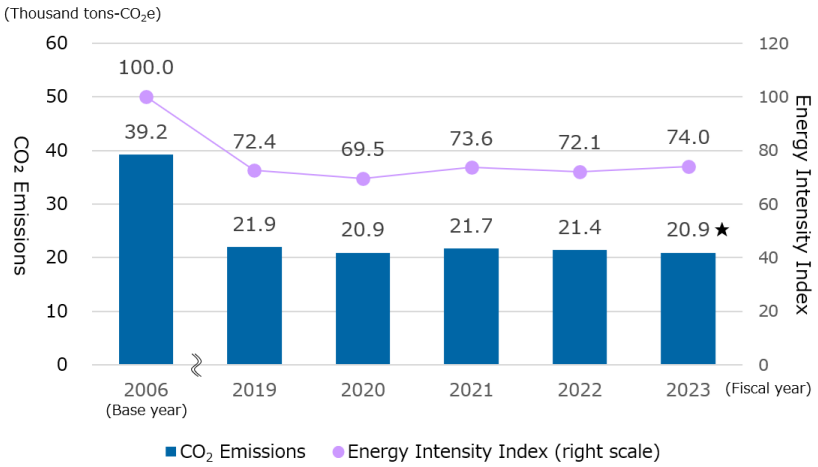
Investments in Energy-Efficient Facilities

■ Results of Our Own Environmental Capital Investment Program

Fiscal Year	Investments (million yen)	Number	Reduced CO_2 Emission of the Year
2019	200	29	1,227 tons-CO_2
2020	200	27	1,010 tons-CO_2
2021	300	36	1,757 tons-CO_2
2022	300	30	2,319 tons-CO_2
2023	300	38	3,692 tons-CO_2

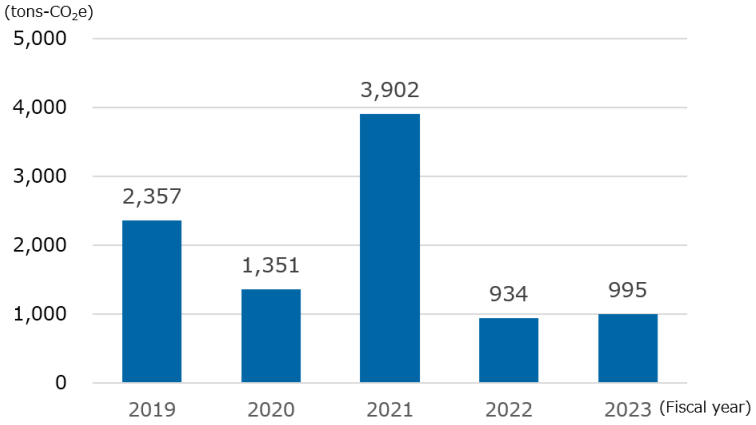
Energy-Efficiency Initiatives in Logistics

■ CO_2 Emissions and Energy Intensity Index from Logistics (Kaneka)



Response to the Act on Rational Use and Proper Management of Fluorocarbons of Japan

■ Estimated Leakage of Fluorocarbons (Kaneka)

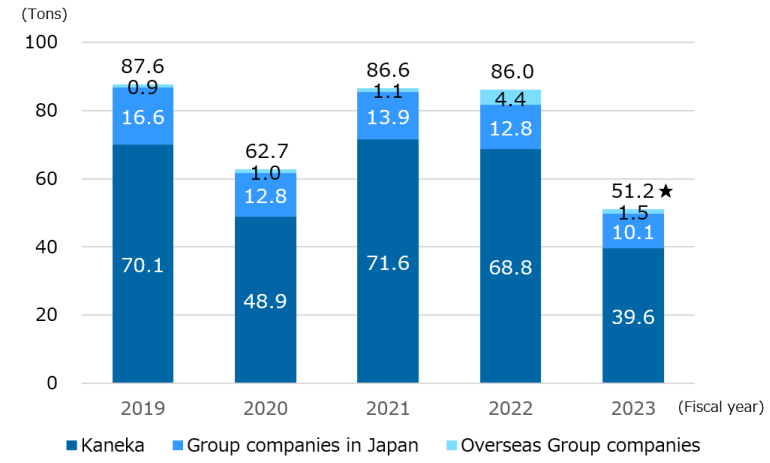


Preventing Pollution and Managing Chemical Substances

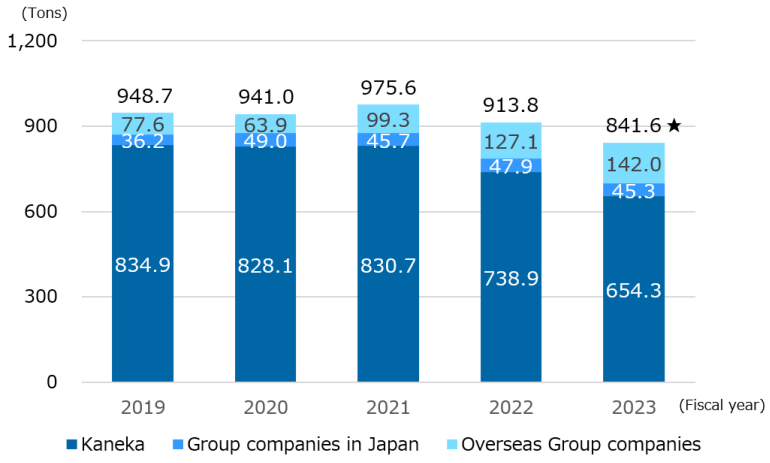
Preventing Air Pollution

Note: Amounts reported here may not fully match, due to rounding.

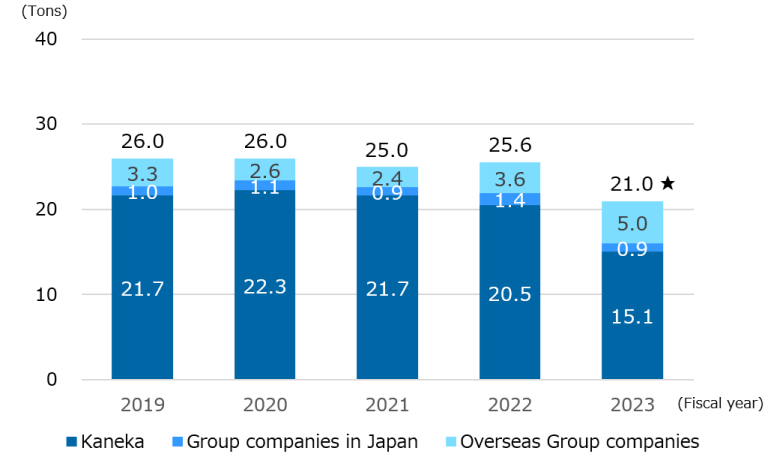
■ SOx Emissions



■ NOx Emissions



■ Soot and Dust Emissions



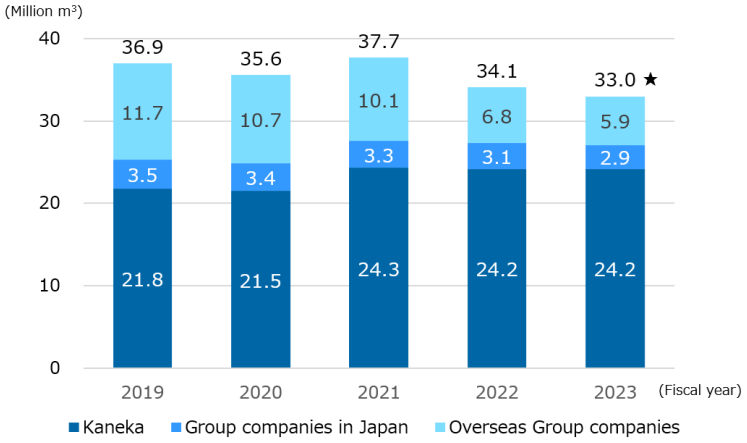
Water Conservation

Note: Amounts reported here may not fully match, due to rounding.

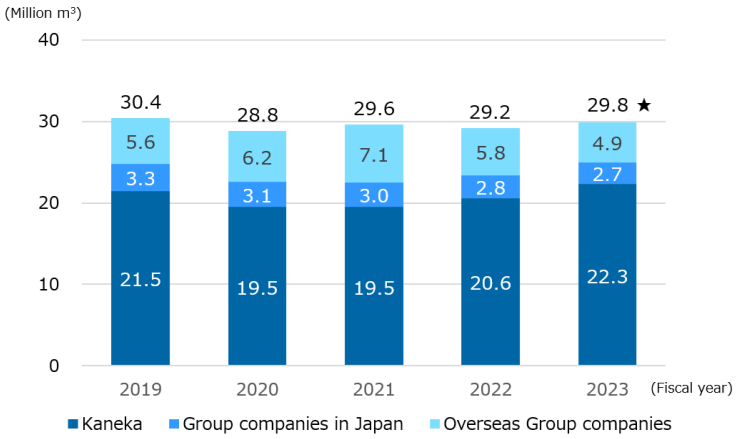
*1 Our water consumptions and wastewater volume include those generated from non-manufacturing facilities other than the plant department.

*2 Starting from fiscal 2023 results, overseas Group companies are subject to third-party assurance. A review of data for and prior to fiscal 2022 revealed input errors, etc. The actual values have therefore been revised.

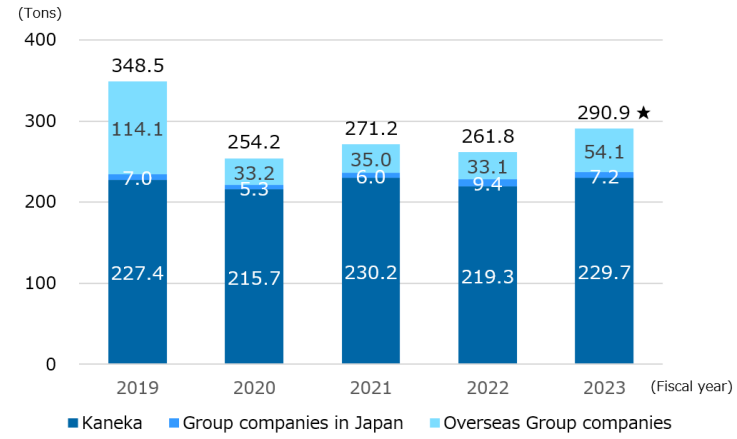
■ Water Consumptions (*1)



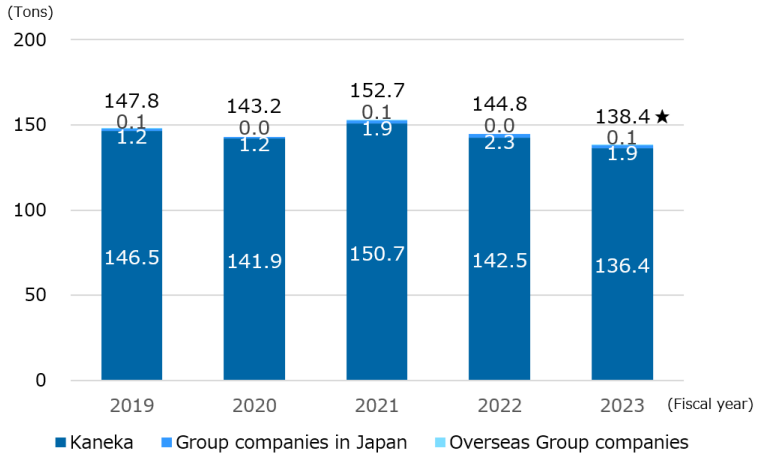
■ Wastewater Discharges (*1)



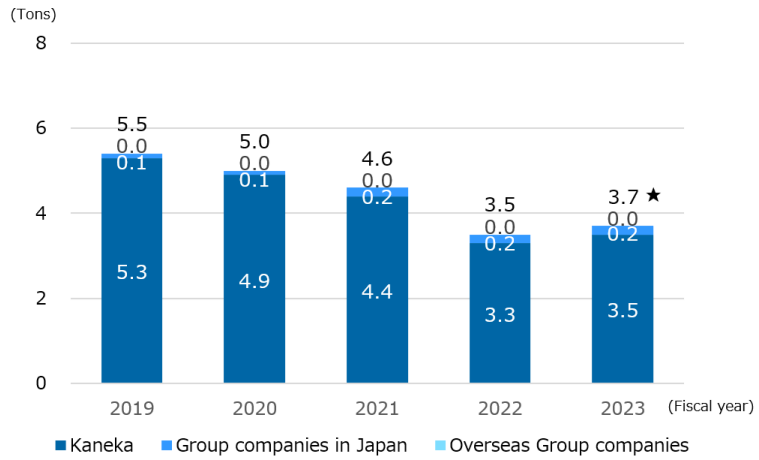
■ Chemical Oxygen Demand in Wastewater (*1) (*2)



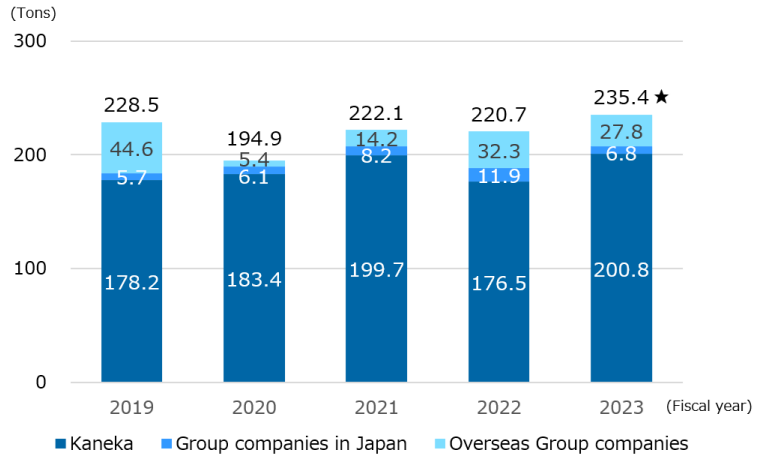
■ Nitrogen in Wastewater (*1) (*2)



■ Phosphorous in Wastewater (*1) (*2)

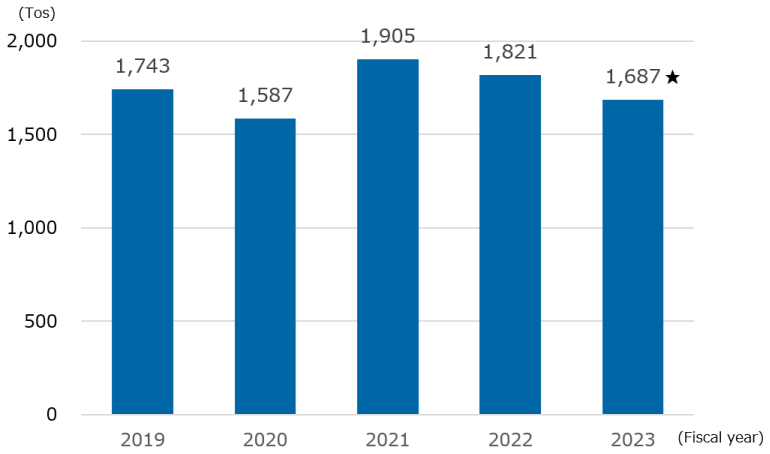


■ Suspended Solids in Wastewater



Volatile Organic Compounds Emission Reductions

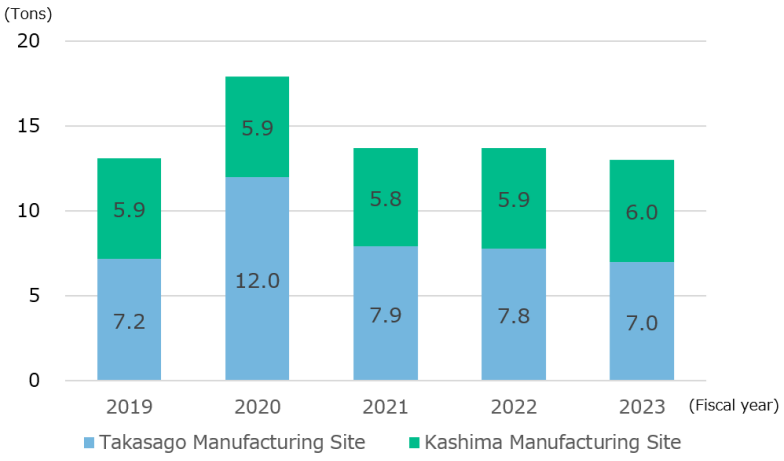
■ VOC (*3) Emissions（Kaneka）



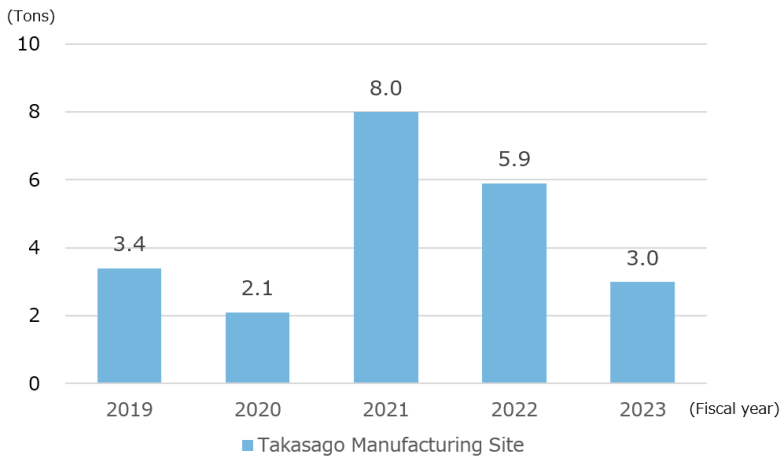
*3 Volatile Organic Compounds (VOCs) are organic chemical substances that cause suspended particulate matter and photochemical oxidants.

Hazardous Atmospheric Pollutants (Data of six substances for each manufacturing site of Kaneka)

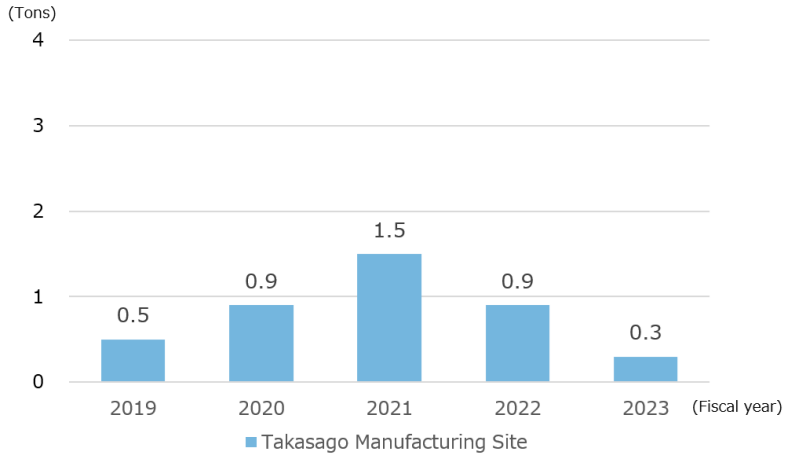
■ Chloroethylene Emissions



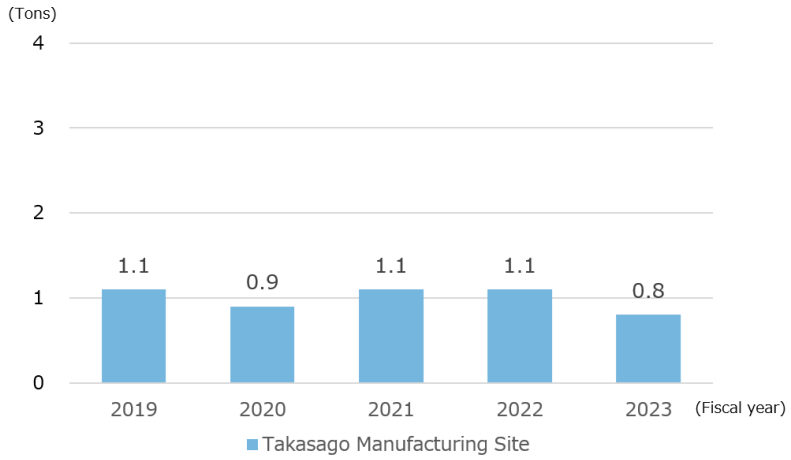
■ 1,2-Dichloroethane Emissions



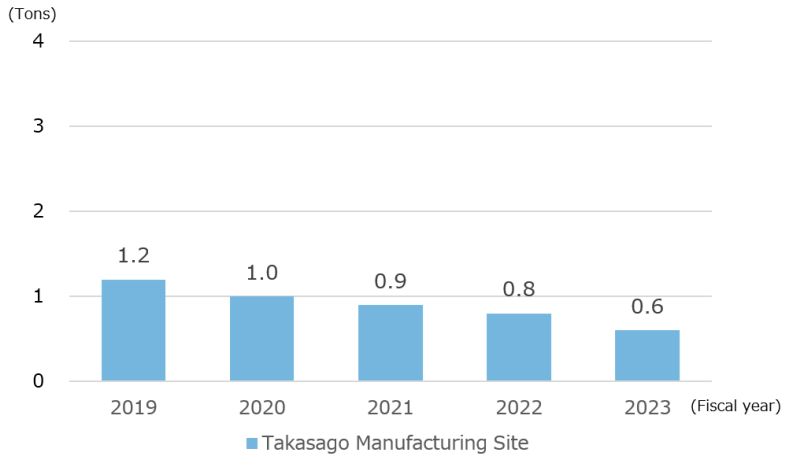
■ Chloroform Emissions



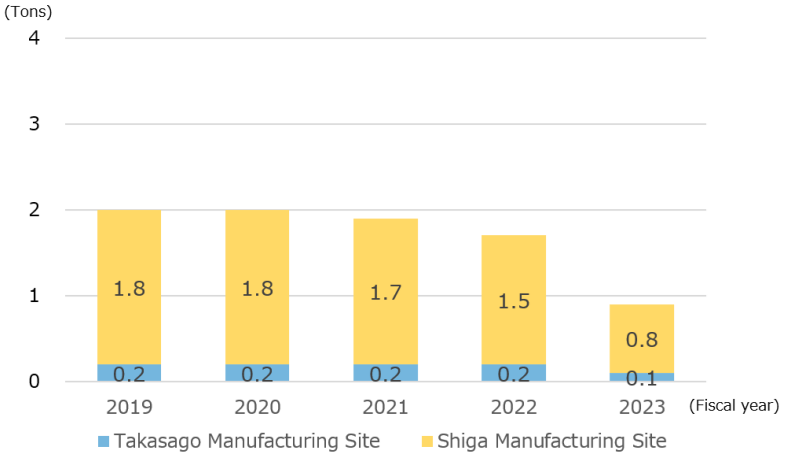
■ Acrylonitrile Emissions



■ 1,3-Butadiene Emissions



■ Dichloromethane Emissions



Substances Subject to the PRTR Law

■ Kaneka Emissions Subject to the PRTR Law (Kilograms)

	JPSN(Japan PRTR-SDS Number)	Chemical Substances	Fiscal 2023						Fiscal 2022
			Emissions					Transferred	Emissions
			Atmospheric Emissions	Discharges into Public Waterways	Discharges into Soil	Internal Landfill	Total	Total	Total
Large Discharges of 10 Substances	392	Hexane	20,699	0	0	0	20,699	108,062	24,336
	595	Ethylenediaminetetraacetic acid and its potassium and sodium salts	0	19,521	0	0	19,521	1,136	-
	134	Vinyl acetate	13,949	308	0	0	14,257	0	6,486
	94	Chloroethylene (synonym: Vinyl chloride)	12,974	659	0	0	13,632	954	14,192
	275	Sodium dodecyl sulfate	0	8,504	0	0	8,504	0	8,479
	420	Methyl methacrylate	4,983	41	0	0	5,024	2	5,258
	674	Tetrahydrofuran	3,650	0	0	0	3,650	6,181	-
	232	N,N-Dimethylformamide	2,276	1,142	0	0	3,418	216,231	3,185
	7	Butyl acrylate	3,312	1	0	0	3,313	2,881	3,306
	123	3-Chloropropene (synonym: Allyl chloride)	3,252	0	0	0	3,252	0	2,827
Total Other than the 10 Substances Above			14,090	5,254	0	0	19,344	154,789	24,979
Grand Total for All Substances			79,184	35,429	0	0	114,613	490,235	93,048

Note: Of the 515 substances subject to the PRTR Law, Kaneka reports about 61 items.

Amounts reported here may not fully match, due to rounding.

■ Group Companies in Japan Emissions Subject to the PRTR Law (Kilograms)

	JPSN(Japan PRTR-SDS Number)	Chemical Substances	Fiscal 2023						Fiscal 2022
			Emissions					Transferred	Emissions
			Atmospheric Emissions	Discharges into Public Waterways	Discharges into Soil	Internal Landfill	Total	Total	Total
Large Discharges of 10 Substances	232	N,N-Dimethylformamide	35,040	0	0	0	35,040	17,659	41,111
	300	Toluene	26,924	0	0	0	26,924	745,322	19,763
	691	Trimethylbenzene	2,805	0	0	0	2,805	0	2,696
	80	Xylene	2,619	0	0	0	2,619	0	2,517
	186	Dichloromethane (synonym: Methylene chloride)	2,528	0	0	0	2,528	38,372	7,336
	127	Chloroform	500	0	0	0	500	5,750	50
	392	Hexane	470	0	0	0	470	8,350	240
	355	Bis(2-ethylhexyl) phthalate	313	32	0	0	345	242,719	522
	56	Ethylene oxide	196	0	0	0	196	0	700
	438	Methylnaphthalene	72	0	0	0	72	0	74
Total Other than the 10 Substances Above			6	6	0	0	12	22,258	518
Grand Total for All Substances			71,472	38	0	0	71,509	1,080,430	75,527

Note: Of the 515 substances subject to the PRTR Law, Group companies in Japan reports about 31 items.

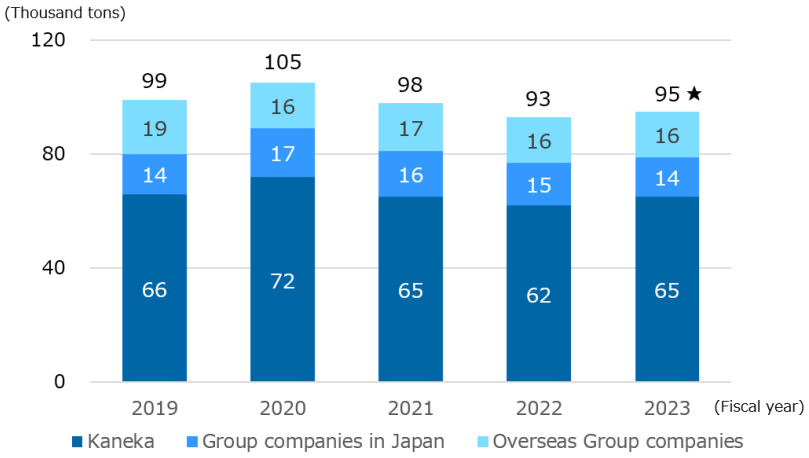
Amounts reported here may not fully match, due to rounding.

Reducing Waste and Recycling Resources

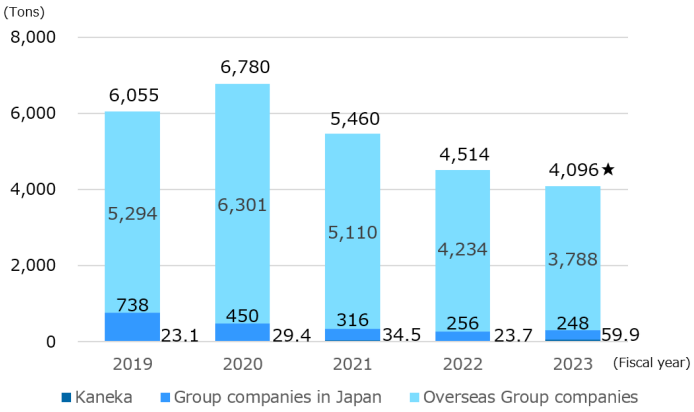
Reducing Industrial Waste Sent to Final Landfill

*1 Calculations include waste at overseas sites for which the classification as industrial waste is unclear.

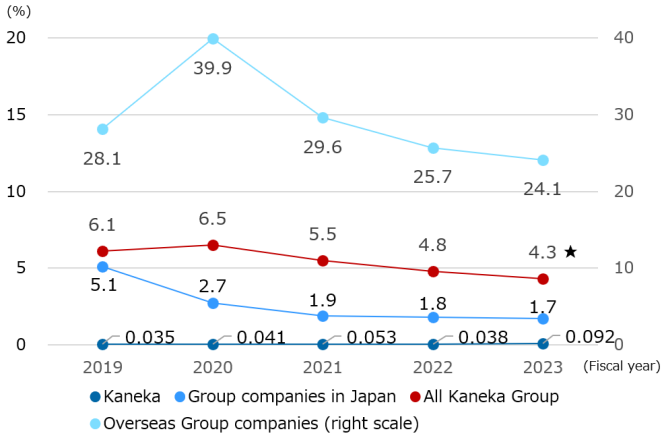
■ Waste Generated (*1)



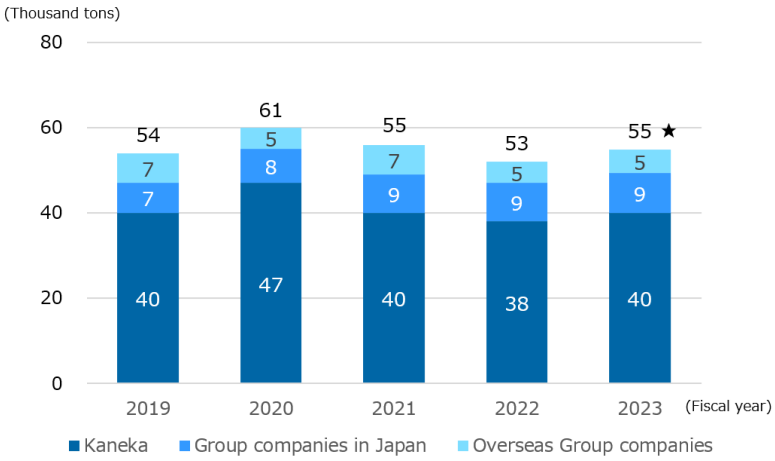
■ Volume of Waste Sent to Final Landfill (*1)



■ Rate of Waste Sent to Final Landfill

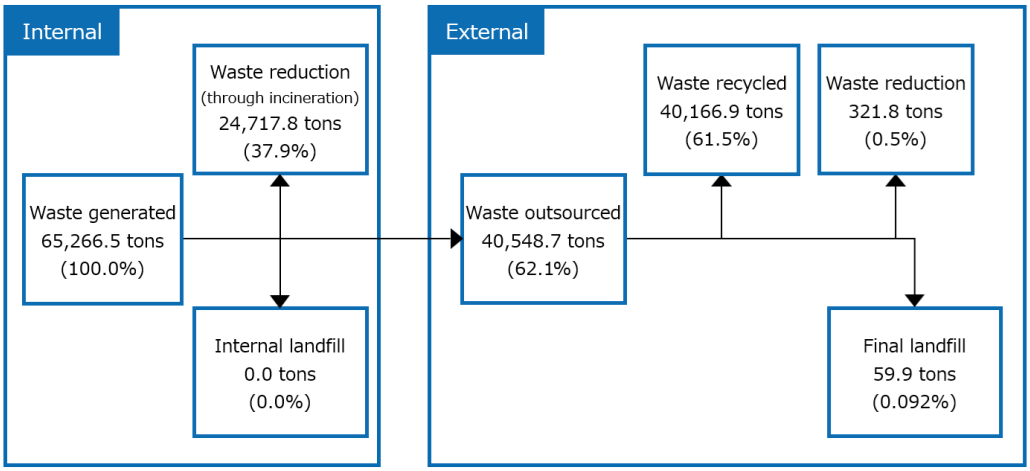


■ External Recycling



Note: Amounts reported here may not fully match, due to rounding.

■ Waste Flow: From Generation to Landfill (Fiscal 2023 results at Kaneka)



Safety

Basic Policy

Placing the top priority for management on safety, we have established the Basic Policy on Safety, under which all employees as well as all persons working at the Kaneka Group and our partner companies work to create safe and healthy workplaces, pursuing the goal of no accidents and no disasters.

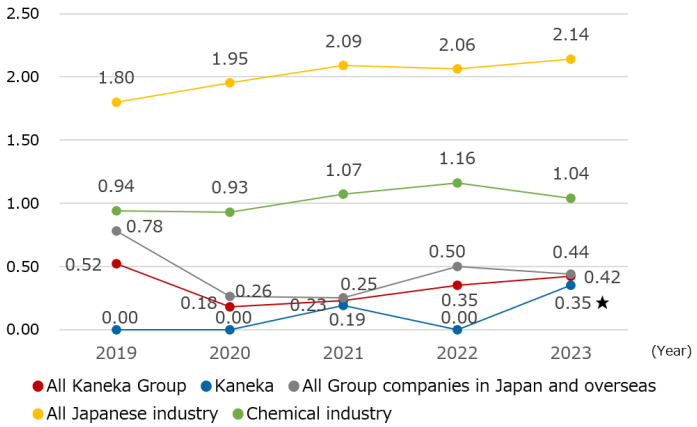
■ Comprehensive Disaster Drills

Manufacturing Site	Date	Participants	Details
Takasago Manufacturing Site	December 18, 2023	2,120	An earthquake resulting in a fire caused by hazardous material leakage
Osaka Manufacturing Site	November 8, 2023	1,100	An earthquake resulting in a fire caused by hazardous material leakage
Shiga Manufacturing Site	November 26, 2023	367	An earthquake resulting in a fire
Kashima Manufacturing Site	December 12, 2023	72	Hazardous material leakage and fire at the time of loading onto tanker trucks

■ OSHMS Certifications

Manufacturing Site	Location	Certification Date	Certification No.
Takasago Manufacturing Site	Hyogo	March 10, 2008	08-28-13
Osaka Manufacturing Site	Osaka	August 21, 2007	07-27-10
Shiga Manufacturing Site	Shiga	January 15, 2008	08-25-6
Kashima Manufacturing Site	Ibaraki	December 13, 2010	10-8-26

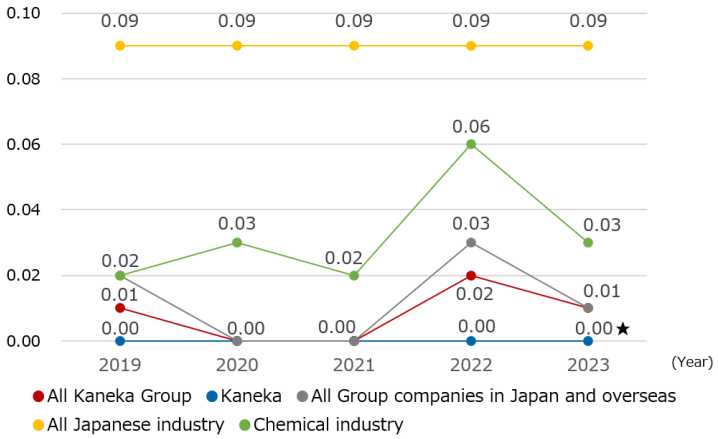
■ Accident Frequency Rate



Note: Accident Frequency Rate is an indicator that shows the frequency of occupational accidents that caused death and/or injury by indicating the number of casualties per total 1 million working hours.

Scope: Includes manufacturing sites with regular employees, contract employees, and temporary employees dispatched from other companies. The Tomatoh (Hokkaido) Manufacturing Site, completed in August 2024, is not included in 2023 results. Employees seconded to or from other companies and employees of partner companies are not included.

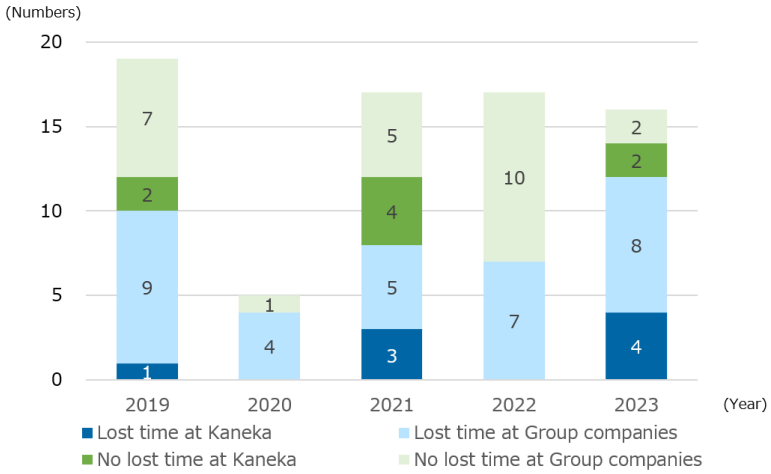
■ Accident Severity Rate



Note: Accident Severity Rate is an indicator that shows the level of severity of occupational accidents by indicating the number of lost work days per total 1,000 working hours. The number of lost work days is calculated as equivalent to the number of days lost from work due to an accident resulting in work absence.

Scope: Includes manufacturing sites with regular employees, contract employees, and temporary employees dispatched from other companies. The Tomatoh (Hokkaido) Manufacturing Site, completed in August 2024, is not included in 2023 results. Employees seconded to or from other companies and employees of partner companies are not included.

■ Accidents Resulting / Not Resulting in Lost Time



Note: The number of occupational accidents includes those among employees at Kaneka and partner companies working in the Kaneka Group.

Quality

Basic Policy

Aiming to benefit society and satisfy customers through a stable supply of safe and reliable products, Kaneka Group has set Quality Management Regulations to ensure thorough day-to-day quality control and product safety at all stages, from product design and development to delivery to customers.

Product Responsibility (as of March 31, 2024)

Certification Acquisition Status

■ ISO 9001 Certification

Division or Group Company (SV : Solutions Vehicle)	Major Products	Registry Organization and Number
Vinyls and Chlor-Alkali SV	Caustic soda, hydrochloric acid, sodium hypochlorite, liquid chlorine, vinyl chloride monomers, polyvinyl chloride, polyvinyl chloride paste, heat-resistant polyvinyl chloride, and OXY chlorination catalyst	JCQA / JCQA-1263
Performance Polymers (MOD)SV	Impact modifiers (Kane Ace™ B etc.), processing aids and specialty additives (Kane Ace™ PA etc.), toughener for thermosetting resins (Kane Ace™ MX), engineering resin for injection molding (Kaneka Hyperite™), zero birefringence PMMA material (Kaneka Hyperite™), and Acrylic film (Sunduren™)	LRQA / ISO 9001-0066620
Performance Polymers (MS)SV	Silyl-terminated polyether (Kaneka MS Polymer™ etc.), acrylic silicon polymer (Kaneka Gemlac™), terminally reactive liquid acrylic polymer (KANEKA XMAP™ etc.), and isobutylene-based thermoplastic elastomer (SIBSTAR™)	
Green Planet Project	Biodegradable polymer (KANEKA Biodegradable Polymer Green Planet™)	
Foam & Residential Techs SV	Bead technique-based polyolefin resins and molded products (Eperan™, Eperan PP™), bead technique-based expandable polystyrene (Kanepearl™), and extruded polystyrene foam board (Kanelite™)	JCQA / JCQA-0673
Hokkaido Kanelite Co., Ltd.		
Kyushu Kanelite Co., Ltd.		
E & I Technology SV	Ultra-heat-resistant polyimide films (Apical™, Pixeo™), optical film (Elmech™), Optical acrylic resin, polyimide varnish for flexible displays, bonded magnets (Kaneka Flux™), multi-layered insulation materials, PVC pipes for underground electric cables, high thermal-conductive graphite sheet (Graphinity™), thermal conductive elastomer, and flexible cover coat ink	LRQA / ISO 9001-0077397
	Highly heat-resistant, highly light-resistant resins and molded products	DNV / 01635-2006-AQ-KOB-RvA/JAB

PV & Energy Management SV Kaneka Solartech Corporation Kaneka Solar Marketing Corporation	Design, development, manufacturing, sales, and services of photovoltaic modules Sales and services of photovoltaic power generation system materials	JQA / JQA-QMA13200
Foods & Agris SV Takasago Manufacturing Site Foods Manufacturing Department Kaneka Foods Manufacturing Corporation Tokyo Kaneka Foods Manufacturing Corporation	Margarine, shortening, edible oils and fats, edible refined oils and fats, whipped cream, concentrated milk products, modified milk, fermented milk products, flour paste, butter cream, chocolate, frozen dough, cheese, mayonnaise, cooking fillings, prepared foods, yeast, radish sprout extract, enoki mushroom extract formulations, and seasoning materials	JQA / JQA-QMA10274
Kaneka Foods Corporation	Purchase, design, sales, technological services, and quality assurance for processed foods and raw materials, and sales of food processing machinery	
NJF Co., Ltd.	Production instruction of processing contractors	
OLED Business Development Project OLED Aomori Co., Ltd.	Organic electroluminescent lighting	JMAQA / JMAQA-2532
Showa Kasei Kogyo Co., Ltd.	Plastic compounds	ASR / Q0556
Tatsuta Chemical Co., Ltd.	Plastic film, plastic sheet	ASR / Q4917
Sanvic Inc.	Synthetic resin sheets and films	JMAQA / JMAQA-1824
Tobu Chemical Co., Ltd.	Plastic wallpaper, vinyl chloride resin wallpaper	LRQA / YKA0958154
Cemedine Co., Ltd.	Development and manufacture of general and industrial adhesives, sealants and special paints	JCQA / JCQA-0386
Kanto Styrene Co., Ltd.	Bead technique-based polystyrene foam molded products	IIC / JN-1050.0
Kaneka Foam Plastics Co., Ltd. Moka Plant, Kyushu Plant	Bead technique-based polyolefin molded products	ASR / Q1919
Tamai Kasei Co., Ltd.	A series of operations related to order receipt, manufacturing, inspection, and shipping of Phase Change Material (PCM) (Patthermo™)	ASR / Q4131
Vienex Corporation	Electronic products	JSA / JSAQ2593
Shinka Shokuhin Co., Ltd.	Modifiers for bread and confectionery, processed fruit products, outsourced products (margarine, cooking fillings, modified milk)	JQA / JQA-QMA15323
Taiyo Yushi Corporation	Margarine, shortening, edible refined oils and fats, edible vegetable oils and fats, refined lard, other edible oils and fats, processed fats, dairy products, and food additives	JQA / JQA-QMA14671

	Cosmetics for hair and skin care, dental care items, body soaps, and soaps for clothes, dish washing and house cleaning	BVJ / 4171923
Kaneka Sun Spice Corporation	(1) Product design and development of spices and secondary processed products incorporating spices (2) Purchase and sales of general processed foods and their ingredients	JQA / JQA-QMA11351
Nagashima Shokuhin Co., Ltd.	Frozen puff pastry dough and frozen cookie sheets	JQA / JQA-QMA15844
Tochigi Kaneka Corporation	Design and manufacture of multilayer insulating materials, graphite sheets, solar panel assembly	ASR / ISO-9001-Q4710
Kaneka Belgium N.V.	Modifier resins (Kane Ace™), bead technique-based polyolefins (Eperan™, Eperan PP™), modified silicone polymer (Kaneka MS Polymer™), and acrylic sol	AIB-VINCOTTE / BE-91 QMS 028j
Kaneka North America LLC	Ultra-heat-resistant polyimide films (Apical™), modifier resins (Kane Ace™, Kaneka Telalloy™), heat-resistant vinyl chloride resins, and modified silicone polymers (Kaneka MS Polymer™)	BSI / FM72722
Kaneka (Malaysia) Sdn. Bhd.	Modifier resins (Kane Ace™)	SIRIM QAS / QMS 00900
Kaneka Paste Polymers Sdn. Bhd.	Vinyl chloride paste resin	SIRIM QAS / QMS 00900
Kaneka Apical Malaysia Sdn. Bhd.	Ultra-heat-resistant polyimide films (Apical™), High thermal-conductive graphite sheet (Graphinity™)	SIRIM QAS / QMS 00900
Kaneka MS Malaysia Sdn. Bhd.	Modified silicone polymer (Kaneka MS Polymer™)	SIRIM QAS / QMS 00900
Kaneka Innovative Fibers Sdn. Bhd.	Synthetic fibers (FPW, iMODA)	SIRIM QAS / QMS 00900
Kaneka Eperan Sdn. Bhd.	Development, manufacture of polyethylene foam, polypropylene foam beads and planks	SIRIM QAS / QMS00996
Kaneka Eperan (Suzhou) Co., Ltd.	Bead technique-based polyolefins (Eperan™, Eperan PP™)	SGS / CN18/20031
Kaneka (Foshan) High Performance Materials Co., Ltd.	Bead technique-based polyolefins (Eperan™, Eperan PP™)	Beijing East Allreach certification Center Co., Ltd. / USA19Q44009R1S
Kaneka (Thailand) Co., Ltd.	Development, manufacture of mini pellets and polyolefin beads, including product application development	BSI / FM714676
KSS Vietnam Co., Ltd.	Processed spices, herbs, dried vegetables, and mixed spices	Intertek Certification Limited / CPRJ-2015-040996
Kaneka Eurogentec S.A.	Development, production and sales of products and services for research and development in life sciences	BSI / FS 638601
Anaspec Inc.	Peptides, antibodies, synthetic resins, amino acids, and reagents for research	SQA/09.357.1

■ ISO 13485 Certification(*1)

Division or Group Company (SV: Solutions Vehicle)	Main Products	Registry Organization and Number
Medical SV Kaneka Medix Corporation	Adsorbents, Lixelle™, liposorber™, catheters, silascon™, ED coil, and in-vitro diagnostics	TÜV SÜD / Q5 024736 0069
Kaneka Medical Vietnam Co., Ltd.	Catheters (parts)	
Kaneka Medical Tech Corporation	Endoscopic instruments, catheter electrodes	
Kaneka Eurogentec S.A.	Contract manufacturing of in vitro diagnostic oligonucleotides	BSI / MD 638600
AB-Biotics, S.A.	Medical devices using probiotic extracts	KIWA / 20786-M

*1 ISO 13485 is an international standard covering the comprehensive management system requirements for the design and manufacture of medical equipment.

■ ISO 22000 Certification(*2)

Manufacturing Department or Group Company	Main Products	Registry Organization and Number
Takasago Manufacturing Site Pharmaceutical Department	Coenzyme Q10 (Kaneka Q10™, Kaneka QH™)	SGS / JP10 / 030379
KSS Vietnam Co., Ltd.	Processing of spices, herbs, dried vegetables, and mixed spices	Intertek Certification Limited / 38191405003
Shinka Shokuhin Co., Ltd.	Modifiers for bread and confectionery, processed fruit products, outsourced products (margarine, cooking fillings, modified milk)	JQA-FS0286

*2 ISO 22000 is an international standard for food safety management systems.

■ Food Safety System Certification 22000 (FSSC 22000)(*3)

Manufacturing Department or Group Company (SV: Solutions Vehicle)	Main Products	Registry Organization and Number
Takasago Manufacturing Site Foods Manufacturing Department	Margarine, shortening, edible oils and fats, edible refined oils and fats, whipped cream, concentrated milk products, modified milk, and yeast	JQA / JQA-FC0047-1
Kaneka Foods Manufacturing Corporation	Margarine, flour paste, buttercream, cheese, fermented milk products, antifreeze protein, antifreeze polysaccharide, and seasoning materials	JQA / JQA-FC0047-2
Tokyo Kaneka Foods Manufacturing Corporation	Margarine, shortening, flour paste, buttercream, and whipped cream	JQA / JQA-FC0047-3
Taiyo Yushi Corporation	Margarine, shortening, edible refined oils and fats, edible vegetable oils and fats, refined lard, other edible oils and fats, processed fats, and dairy products (butter)	JQA / JQA-FC0044
Nagashima Shokuhin Co., Ltd.	Frozen dough (pies and confectionery)	JQA / JQA-FC0109
PT. Kaneka Foods Indonesia	Cooking fillings, whipping creams, margarines, modifiers for bread	SGS / ID22/00000151
Kaneka Sun Spice Corporation Shiga Plant	Manufacture of spices, seasonings, curry powder and liquid spices (garlic, ginger, oil seasonings)	JQA / JQA-FC0281-1
Kaneka Sun Spice Corporation Ibaraki Plant	Manufacture of spices, seasonings, curry powder and liquid spices (garlic, ginger, oil seasonings)	JQA / JQA-FC0281-2
AB-Biotics, S.A.	Manufacturing of probiotic supplements	LQRA / 10516505

*3 The Food Safety System Certification 22000 (FSSC22000) offers a complete certification Scheme for Food Safety Management Systems based on ISO 22000, ISO/TS 22002-1, and additional FSSC 22000 requirements.

■ ISO 22716 Certification(*4)

Group Company	Main Products	Registry Organization and Number
Taiyo Yushi Corporation	Shampoos, conditioners, body soaps, and hand creams	BVJ / 4521945

*4 ISO 22716 is guidelines on the Good Manufacturing Practices (GMP) of cosmetic products.

■ ISO 17025 Certification(*5)

Group Company	Main Products	Registry Organization and Number
Tokyo Kaneka Foods Manufacturing Corporation	Microbial testing (viable bacteria count, coliform count)	JAB / RTL04360
Kaneka Foods Manufacturing Corporation	Microbial testing (viable bacteria count)	JAB / 113749

*5 ISO 17025: General requirements for the competence of testing and calibration laboratories; Criteria based on which an accreditation body assesses whether the relevant testing and calibration laboratory can produce accurate measurement and calibration results.

■ IATF 16949 Certification(*6)

Group Company	Main Products	Registry Organization and Number
Kaneka Eperan Sdn. Bhd.	Development, manufacture of polypropylene foam beads	SIRIM QAS / 0388920
Kaneka (Thailand) Co., Ltd.	Development, manufacture of mini pellets and polyolefin beads, including product application development	BSI / Certification No.795333 IATF No.0499559

*6 IATF 16949 is a sector standard for quality management systems based on ISO 9001 with the addition of automobile industry-specific requirements.

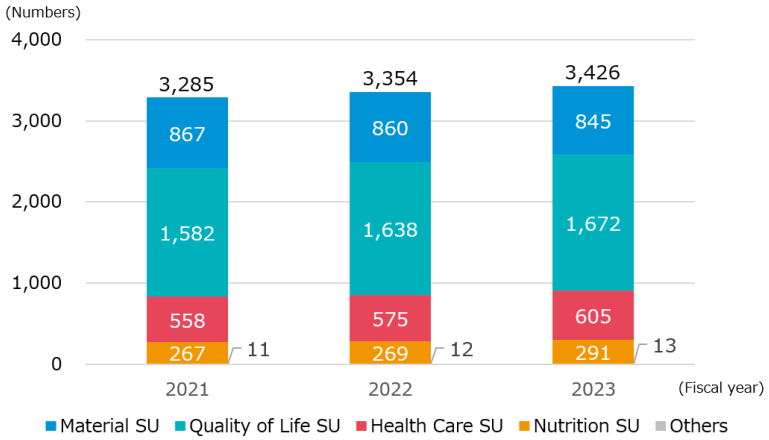
■ JISQ 8901 Certification(*7)

Division (SV: Solutions Vehicle)	Main Products	Registry Organization and Number
PV & Energy management SV	Photovoltaic modules	JET / PV10-8901-1001

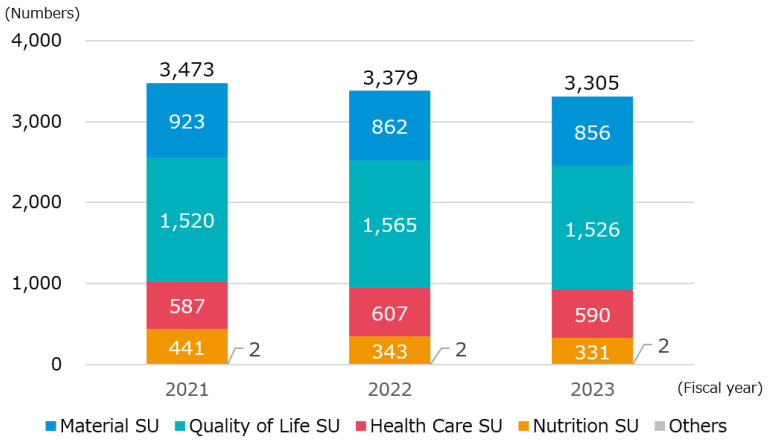
*7 JISQ 8901: Defines requirements for reliability assurance system (design, manufacturing and performance assurance) for ground-mounted solar cell (PV) modules.

Intellectual Property

■ Number of Japanese Patents Held



■ Number of Overseas Patents Held



Human Resources

The scope of reporting is limited to Kaneka (including seconded employees). If the aggregation range is different, a note is clearly provided.

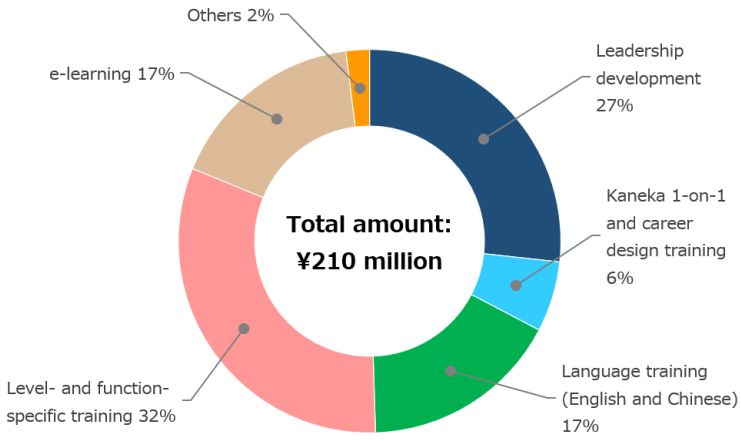
Basic Information

		Fiscal 2021	Fiscal 2022	Fiscal 2023
Number of employees	(Consolidated)	11,335	11,545	11,544
	(Kaneka)	3,915 male: 3,421 female: 494	3,856 male: 3,344 female: 512	3,801 male: 3,258 female: 543
Average age	(Kaneka)	41.4	41.6	41.6
Years of service	(Kaneka)	17.7	17.7	17.4
Average annual salary (yen)	(Kaneka)	7,551,838	7,731,882	7,971,831
Labor union members	(Kaneka)	3,004	2,941	2,886

Note: As of March 31 each year

Development of Human Resources and Leaders Centered on Kaneka 1-on-1

■ Results of Company-wide Training (Kaneka：Fiscal 2023)



■ Development of Leaders

Program	Content	Fiscal 2021 (participants)	Fiscal 2022 (participants)	Fiscal 2023 (participants)	Total from start of program (participants)
Hitotsubu-no Tane Momi Juku	Lectures and exercises by the top management and first-class instructing staff targeted at future leaders and management personnel	12 (of which, female 3)	12 (of which, female 3)	12 (of which, female 3)	109 (of which, female 10)
Leadership Training	Acquiring and practicing leadership skills and follow-up	114	56	53	1,518

Note: Aggregated data for Kaneka and Group companies in and outside Japan.

■ Kaneka 1-on-1 Workshop

Target	Content	Fiscal 2021 (participants)	Fiscal 2022 (participants)	Fiscal 2023 (participants)	Total from start of program (participants)
Division heads	Workshops to make heads of organizations aware of their influence as leaders, with the notion that organization heads should devote 80% of their energy to developing subordinates.	—	—	10	10
Executives	Workshops for managers who conduct 1-on-1 to link team member growth with work results and achieve both through dialogue.	145	89	43	637
General employees	Workshops for members who conduct 1-on-1 to envision their own growth plans and raise the quality of dialogue.	—	—	40	40

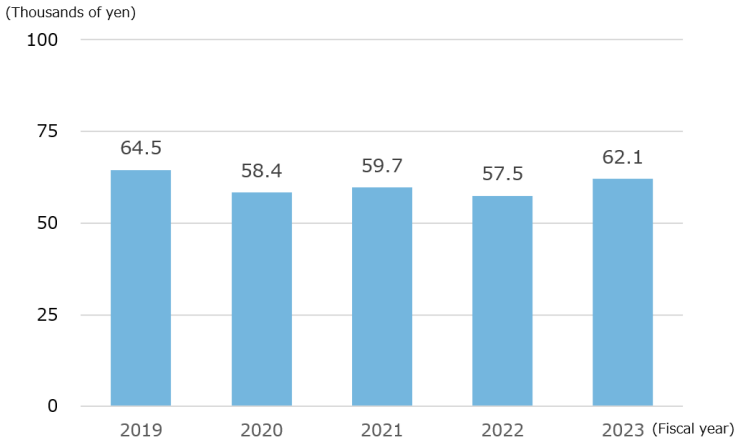
■ Language Education

Purpose of training	Program	Fiscal 2021 (participants)	Fiscal 2022 (participants)	Fiscal 2023 (participants)
Acquisition of languages required for overseas businesses and assignments	English and Chinese language training (by selection)	68	70	74
	English and Chinese language training (by application)	286	274	272
	Language training before overseas transfer	10	7	9
Acquisition of advanced language proficiency and cross-cultural understanding	Work experience at overseas Group companies (overseas training)	3	1	0

■ Human Rights / Compliance Education

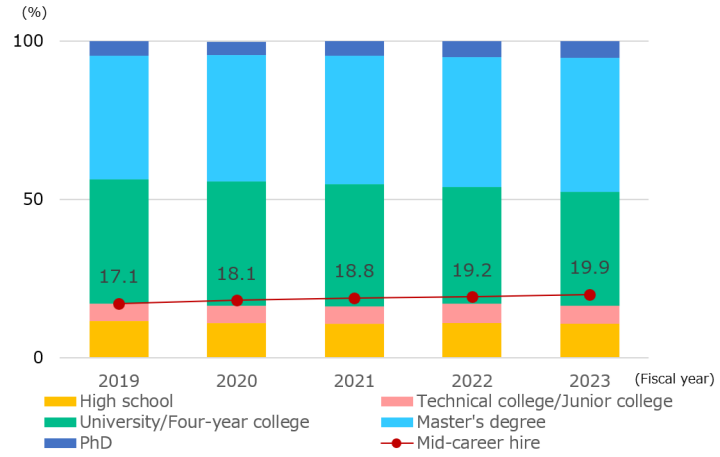
Purpose of training	Program	Fiscal 2021 (participants)	Fiscal 2022 (participants)	Fiscal 2023 (participants)
Human Rights / Compliance Education	Introductory training for new employees	83	74	98
	Training for newly appointed executives	57	65	59
Acquisition of workforce management knowledge required for executive positions	Compliance training for executives	840	862	837

■ Training Costs (per Person)



Promotion of Diversity

■ Composition of Executive Team

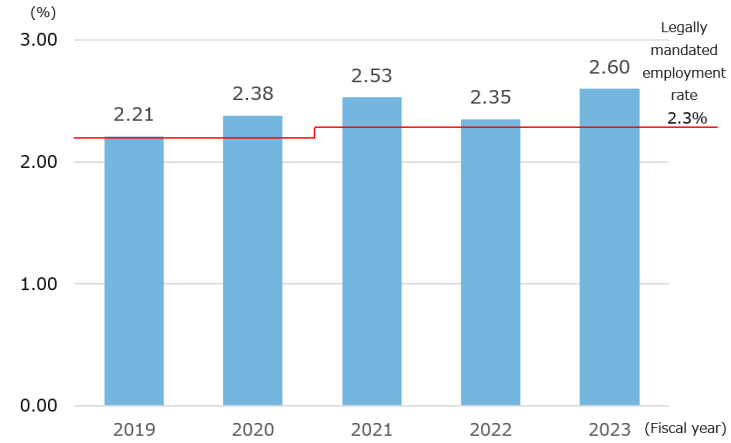


■ Implementation of Career Development and Life Design Support Activities

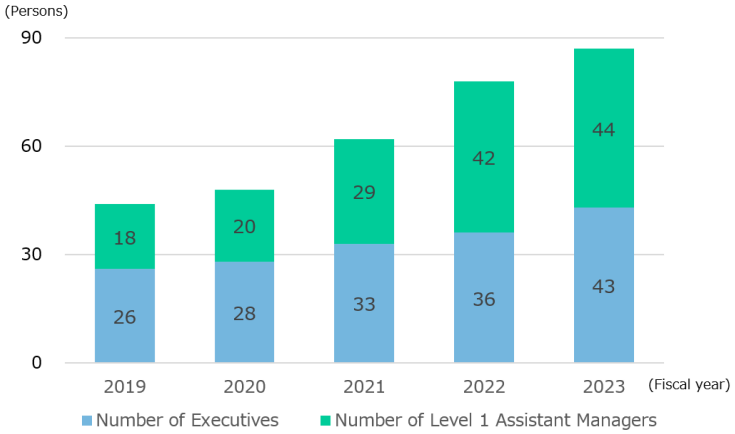
(participants)

Fiscal Year	2021	2022	2023
Career–design Training	487	424	373

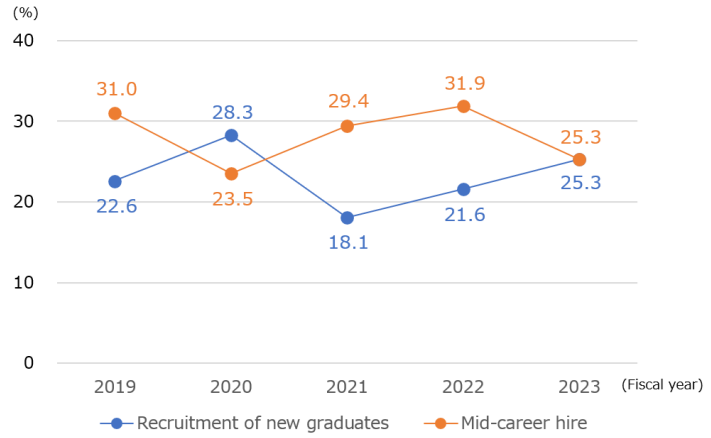
■ Employment Rate of Persons with Disabilities



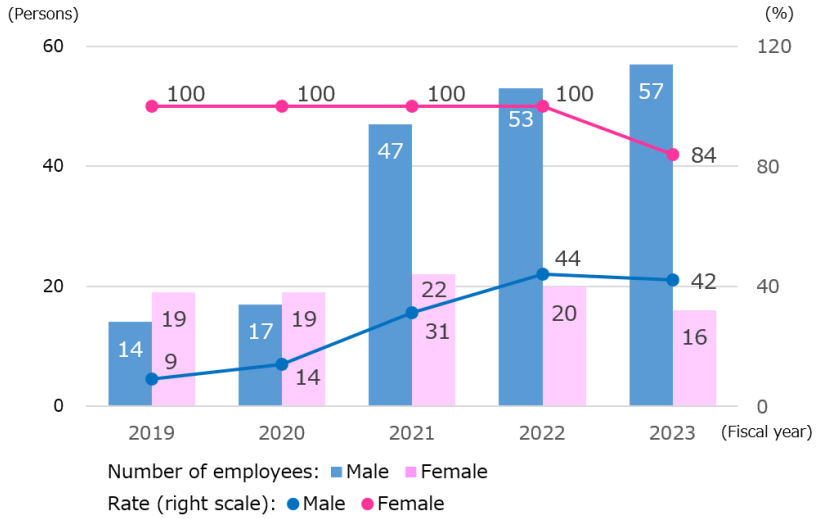
■ Female Executives and Candidates



■ Percentage of Female in Recruitment

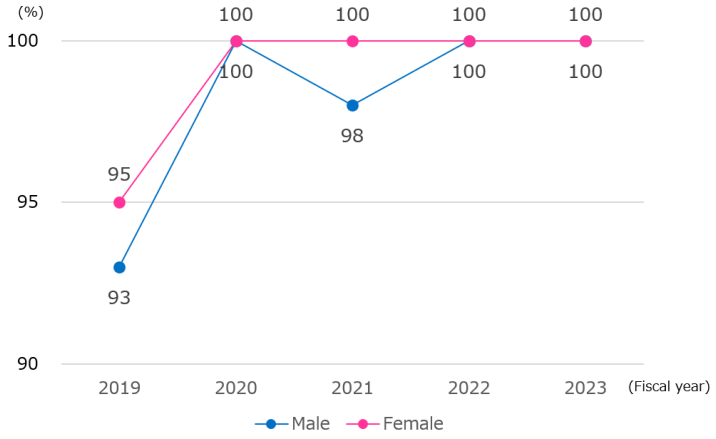


■ Number and Rate of Employees Taking Childcare Leave



82% of male employees took childcare leave, including company-specific systems (leave for wife's childbirth).

■ Return Rate of Employees Taking Childcare Leave



■ Number of Users

Program	Term and period	Fiscal 2021	Fiscal 2022	Fiscal 2023
Child nursing care leave	By the beginning of a semester for a child in the 4th grade (5 days per year per person, maximum of 10 days per year for an employee with two or more children)	male: 94 female: 52	male: 129 female: 62	male: 162 female: 76
Shorter work–hours program	By the beginning of a semester for child in 7th grade (maximum of 2 hours per day per person)	male: 1 female: 58	male: 4 female: 61	male: 8 female: 73
Childcare and Nursing Care Support leave	For childcare (children under 3 years of age) and nursing care (for 48 months from the time when nursing care becomes necessary); up to 20 days of paid leave per person	204	254	315

Note: The childcare cost subsidy reported in the Data Sheet 2023 has been abolished due to an expansion of the system.

Promotion of Wellness

■ Rate of Taking Medical Checkup and Interview / Stress Check

Fiscal Year	2021	2022	2023
Rate of taking medical checkup and interview	100.0%	100.0%	100.0%
Rate of taking stress check	97.2%	96.6%	97.1%
Rate of receiving specific health guidance	29.2%	43.2%	58.8%

■ Percentage of Employees Who Smoke

Fiscal Year	2021	2022	2023
Percentage of employees who smoke	22.6%	21.9%	21.9%

■ Work Performance Indicators

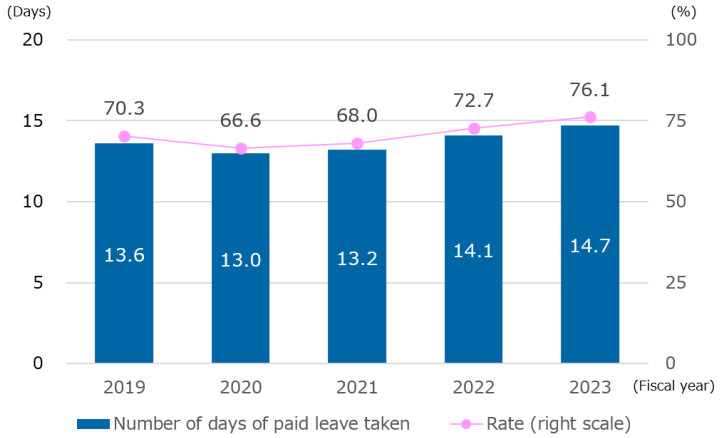
Fiscal Year	2021	2022	2023
Absenteeism (*1)	1.8%	1.5%	1.4%
Presenteeism (*2)	71%	71%	71%
Work Engagement (*3)	2.6	2.6	2.6

*1 Percentage of people absent from work for 30 days or more due to illness, injury, mental illness, etc.

*2 The average value of employees based on self-assessment of their performance as demonstrated over a period of time, where a score of 100% would indicate a mentally and physically optimal state of work performance. Performance is calculated from employee questionnaires based on a score of 0 to 100, using the SPQ Single Item Presenteeism Question (University of Tokyo single item version).

*3 Average score of employees on a 4-point scale for indicating their level of energy and pride in their work. The two items specified in the New Occupational Stress Simple Questionnaire (80-item condensed version) are calculated from employee questionnaires.

■ Number of Days and Rate of Paid Leave Taken



Calculation Methods for Data of Indicators Related to Environment

Calculation methods for data of indicators related to environment are as follows.

【Main Raw Materials, Energy, Products】

Main Raw Materials	Raw materials calculated in or converted to tons
Energy Consumptions	Energy consumptions is calculated based on the Energy Saving Law (Act on Rationalization of Energy Use and Shift to Non-fossil Energy of Japan). However, the amount of electricity or steam sold by Kaneka to outside parties is not deducted from Kaneka's energy consumptions. The boundaries are consistent with the Energy Saving Law and the Act on Promotion of Global Warming Countermeasures of Japan and include all manufacturing sites and other facilities. The GWh conversion value, which is commonly used internationally, is used as a unit of energy. The unit calorific value coefficient of each fuel uses the latest value at the time of calculation based on the Act on Promotion of Global Warming Countermeasures of Japan. Energy other than electricity is converted to GWh after converting to heat GJ. Converted at 1 GWh = 3,600 GJ.
Energy Intensity Index	Energy intensity is a numerical value calculated by dividing the energy used in manufacturing by the volume of activity (production volume at all parent manufacturing sites). The energy intensity index is calculated by indexing the energy intensity, with fiscal 2013 used as the base year of 100.
Products	Products calculated in or converted to tons

【Greenhouse Gas (GHG)】

GHG Emissions	GHG emissions are calculated referring the Greenhouse Gas Protocol, "A Corporate Accounting and Reporting Standard REVISED EDITION". Figures represent the total amount of energy origin CO_2 emissions, non-energy origin CO_2 emissions, the CO_2 equivalent of methane, N_2O, and NF_3 emissions. CO_2 emission factors for steam, units of heat for each fuel, and CO_2 emission factors for each fuel both in Japan and outside Japan use values specified by the Act on Promotion of Global Warming Countermeasures of Japan. Outside Japan, however, if a value is specified in the country concerned, that value is used. As CO_2 emission factors for electricity, the adjusted value for each power company was used for calculations in Japan and the value for each power company and IEA country emission factors were used for calculations outside Japan. IEA country emission factors are calculated using data from two years prior to the year calculated (e.g. 2021 emission factors are used for calculations of fiscal 2023 GHG emissions). The boundaries are the same as those for energy consumptions.
Energy Origin CO_2 Emission Intensity Index	CO_2 emission intensity is a numerical value calculated by dividing energy origin CO_2 emissions associated with production activities, which are calculated using a fixed emission factor unique to Kaneka, by the volume of activity, with fiscal 2013 indexed to 100. Using a fixed emission factor makes it easier to see the impact of our activities.

【Water】

Water Consumptions	Total industrial water, water supply, seawater, river water, groundwater, and other water consumed at each site.
Wastewater Discharges	Total wastewater discharged to public waterways (sea, lakes, rivers, etc.) and wastewater discharged to sewers. At some sites that do not get accurate quantity of wastewater discharges, wastewater discharge is considered to be the same as water consumptions.

【Water Quality in Water Areas】

Chemical Oxygen Demand	Total chemical oxygen demand emissions into public waterways (sea, lakes, rivers, etc.). Calculated as chemical oxygen demand concentration at the discharge outlet multiplied by amount of drainage from each drain to public waterways.
Suspended Solids	Total suspended solid emissions to public waterways (sea, lakes, rivers, etc.). Calculated as suspended solid concentration at the discharge outlet multiplied by amount of drainage from each drain to public waterways.
Nitrogen	Total nitrogen emissions to public waterways (sea, lakes, rivers, etc.). Calculated as nitrogen concentration at the discharge outlet multiplied by amount of drainage from each drain to public waterways.
Phosphorous	Total phosphorous emissions to public waterways (sea, lakes, rivers, etc.). Calculated as phosphorous concentration at the discharge outlet multiplied by amount of drainage from each drain to public waterways.

【Atmospheric Emissions】

SOx	Total sulfur oxides emitted from facilities as defined by the Air Pollution Control Act of Japan. Calculated as annual amount of dry exhaust gas at each facility multiplied by SOx (SO2) concentration. Sulfur oxide (SOx) emissions (tons) = SOx concentration (ppm) x 10^{-6} x dry exhaust gas (Nm^3/h) x annual facility operation hours (h) x 64/22.4 x 10^{-3}
NOx	Total nitrogen oxides emitted from facilities as defined by the Air Pollution Control Act of Japan. Calculated as annual amount of dry exhaust gas at each facility multiplied by NOx concentration. Nitrogen oxides (NOx) emissions (tons) = NOx concentration (ppm) x 10^{-6} x dry exhaust gas (Nm^3/h) x annual facility operation hours (h) x 46/22.4 x 10^{-3}
Soot and Dust	Total soot and dust emitted from facilities as defined by the Air Pollution Control Act of Japan. Calculated as annual amount of dry exhaust gas at each facility multiplied by soot and dust concentration. Soot and dust emissions (tons) = soot and dust concentration (g/Nm^3) x dry exhaust gas (Nm^3/h) x annual facility operation hours (h) x 10^{-6}

【Environmental Accounting (Investments, Expenditures)】

Pollution Prevention	Pollution prevention costs in order to control environmental impacts that occur in our business areas (air and water pollution prevention)
Environmental Conservation	Figures do not include investment and expense amounts related to environmental conservation.
Resource Recycling	Costs of processing industrial and general waste
Upstream and Downstream	Costs of recycling, collection, and appropriate processing of products, and costs of recycling, collection, and appropriate processing of containers and packaging. Includes supply chain management costs (green purchasing, guidance for vendors on reducing environmental impacts and building environmental management systems, etc.).
Management Activities	Costs required for environmental conservation activities at each manufacturing site (environmental education for employees and environmental impact monitoring and measurement).
Research and Development	Costs for research and development of products contributing to environmental conservation and of ways of reducing environmental impacts at the product manufacturing stage (figures do not include research and development investment amounts)
Social Activities	Costs of greening, beautification, landscape preservation, and disclosure of environmental information
Environmental Damage	Costs for addressing environmental damage (payment of sulfur oxide emission charges, etc.)

【Environmental Accounting (Economic Impacts)】

Revenue from Recycling	Total sales amount of off-grade materials and collected items obtained by recycling that resulted in paid transactions (valuable resources).
Cost Reductions by Better Resource Efficiency (Output per Unit of Input)	Total amount of reduction in purchase costs of raw materials, etc. through resource conservation activities and unit cost improvements.
Waste Disposal Cost Reductions by Recycling	Total amount of reduction in processing costs due to reduction of waste through recycling activities.
Cost Reductions by Energy Conservation	Total amount of reduction in energy costs through energy conservation activities.

【Environment Efficiency】

Total Environmental Impact	Kaneka assesses the environmental impacts of our production activities using Environmental Impact Points (EIP), which are compiled using the JEPIX methodology (*1). *1 The Japan Environmental Policy Priorities Index (JEPIX) methodology involves the calculation of an "eco-factor" coefficient for each emitted substance that has an environmental impact, using a ratio of the annual target for emissions under national environmental policies versus actual annual emissions ("Distance to Target"). The eco-factors are then multiplied by a quantity for each environmental impact to produce a single integrated indicator known as Environmental Impact Points (EIP). Calculations of eco-factors are done by the JEPIX Project (www.jepix.org, in Japanese).
Environmental Efficiency	Environmental efficiency is a yardstick to measure efforts to maximize value while minimizing environmental impacts, with the aim of achieving sustainable growth. Kaneka calculates this by dividing net sales (yen) by the EIP.

【Scope 3 GHG Emissions】

Category 1 Purchased Goods/Services	The calculation was made using emission factors listed in the LCI database "AIST-IDEA ver. 3.4" (National Institute of Advanced Industrial Science and Technology) with the purchase results in this fiscal year considered as the volume of activity. The coverage rate was 100% on a raw material purchasing basis.
Category 2 Capital Goods	The calculation was made by multiplying investments in each capital formation area by emission factors listed in the Emissions Unit Database for Calculation of Greenhouse Gas Emissions, etc. by Organizations throughout the Supply Chain, (ver. 3.4) published by the Ministry of the Environment of Japan. The coverage rate was 100% on an investment amount basis.
Category 3 Fuel-and Energy-related Activities	The calculation was made by multiplying electric power, steam, and fuel consumptions by emission factors listed in the Emissions Unit Database for Calculation of Greenhouse Gas Emissions, etc. by Organizations throughout the Supply Chain (ver. 3.4) published by the Ministry of the Environment of Japan and the LCI database AIST-IDEA ver. 3.4 (National Institute of Advanced Industrial Science and Technology). The coverage rate for organizations subject to the calculation was 100% on an energy consumptions.
Category 4 Upstream Transportation and Distribution	The calculation was made using a calculation method stipulated in the Measures Pertaining to Consigners of the Energy Saving Law. Emission results were calculated according to the Energy Saving Law. The coverage rate was 100% on a transportation volume (ton-kilometer) basis.
Category 5 Waste Generated in Operations	The calculation was made by multiplying the volume of waste by type from all Kaneka Group facilities by emission factors listed in the Emissions Unit Database for Calculation of Greenhouse Gas Emissions, etc. by Organizations throughout the Supply Chain (ver. 3.4) published by the Ministry of the Environment of Japan and the LCI database AIST-IDEA ver. 3.4 (National Institute of Advanced Industrial Science and Technology). The coverage rate was 100% on an amount of industrial waste generated basis.

Category 6 Business Travel	The calculation was made by multiplying travel costs by transportation mode and the number of stays by emission factors listed in the Emissions Unit Database for Calculation of Greenhouse Gas Emissions, etc. by Organizations throughout the Supply Chain (ver. 3.4) published by the Ministry of the Environment of Japan. The coverage rate was 100% on a basis of applied business travel expenses. The calculations for Group companies in Japan and overseas Group companies were made by multiplying the number of employees by the emission factor per employee as described in the Policy on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain (ver. 3.4) published by the Ministry of the Environment, Japan. The coverage rate was 100% on a per-employee basis.
Category 7 Employee Commuting	The calculation was made by multiplying travel costs by transportation mode by emission factors listed in the Emissions Unit Database for Calculation of Greenhouse Gas Emissions, etc. by Organizations throughout the Supply Chain (ver. 3.4) published by the Ministry of the Environment of Japan. The coverage rate was 100% on a basis of applied commuting method. The calculations for Group companies in Japan and overseas Group companies were made by multiplying the number of employees and number of working days per year as described in the Policy on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain (ver. 3.4)" published by the Ministry of the Environment, Japan. The number of working days per year was 244 days. The emission factors were multiplied by the number of employees and the number of working days by city category for each business site. The coverage rate was 100% on a per-employee basis.
Category 8 Upstream Leased Assets	According to company policy, we do not use leased assets for upstream operations, in principle. However, if some assets are leased, out of necessity, the emissions from them are included in Scope 1 or 2. The coverage rate was 100%.
Category 9 Downstream Transportation and Distribution	As a chemical company, Kaneka follows the Scope 3 calculation guidance for companies in the chemical sector. This category was thus excluded from the scope of calculation because of the difficulty of accurately grasping a wide range of downstream transportation and distribution operations due to the high percentage of intermediate products.
Category 10 Processing of Sold Products	As a chemical company, Kaneka follows the Scope 3 calculation guidance for companies in the chemical sector. This category was excluded from the scope of calculation because of the difficulty of accurately grasping a wide range of downstream product processing operations due to the high percentage of intermediate products.
Category 11 Use of Sold Products	Most products sold by Kaneka are plastics, chemicals, foods, and pharmaceuticals which do not generate emissions when used. Although some medical devices and organic LED lightings generate emissions upon used, it is difficult to accurately grasp the gauging usage, we used assumptions to estimate emission volumes. Our results confirmed that such emissions represented less than 0.1% of Kaneka's total Scope 3 emissions, the category was thus excluded from the calculation range.
Category 12 End-of-Life Treatment of Sold Products	Assuming that all products manufactured by Kaneka are discarded within the reporting year, production quantities are classified according to type of waste outlined in the Emissions Unit Database for Calculation of Greenhouse Gas Emissions, etc. by Organizations throughout the Supply Chain (ver. 3.4) published by the Ministry of the Environment of Japan. Figures are calculated by multiplying by the emission factors listed in the database.
Category 13 Downstream Leased Assets	The calculation was made by multiplying the activity volume of leased assets by emission factors stipulated in the Act on Promotion of Global Warming Countermeasures according to the Basic Guidelines on the Calculation of Greenhouse Gas Emissions throughout the Supply Chain (ver. 2.6) published by the Ministry of the Environment of Japan. Since the emissions associated with assets leased to Group companies are included in the Scope 1 or 2 emissions of each company, they are included in Category 15.
Category 14 Franchises	This category was considered as an exception for calculation because Kaneka has no franchise stores.
Category 15 Investments	The emissions of Group companies were calculated using a calculation method stipulated in the Act on Promotion of Global Warming Countermeasures according to the Basic Guidelines on the Calculation of Greenhouse Gas Emissions throughout the Supply Chain (ver. 2.6) published by the Ministry of the Environment of Japan and then being multiplied by the relevant equity ratio. Investment in companies other than Group companies was excluded from the boundary of calculation because it has not been made to obtain profits.

【Energy Consumptions in Logistics, CO_2 Emissions】

Energy Consumptions (Crude Oil Equivalent)	Calculated based on the Energy Saving Law Guidebook for Consigners (ver. 7) issued by the Agency for Natural Resources and Energy of Japan.
Energy Intensity Index	Energy intensity index is calculated by using a calculation method stipulated in the Measures Pertaining to Consigners of the Energy Saving Law, indexing the energy intensity, with fiscal 2006 used as the base year of 100.
CO_2 Emissions	Calculated based on the Greenhouse Gas Emissions Calculation and Reporting Manual (ver. 5.0) published by the Ministry of the Environment of Japan.

【Chemical Substances】

Emissions of Substances Subject to the PRTR Law	Emissions to the atmosphere, water areas, soil at each site and landfills at each site, the amount transferred into sewers and into waste are calculated based on the revised Enforcement Order of the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement of Japan (the revised Enforcement Order of PRTR Law) (Enforced on April 1, 2023).
VOC	Total emissions of VOCs into the atmosphere among substances subject to the PRTR Law and the substances that Japan Chemical Industry Association selected from the PRTR Law substances and added voluntarily.
Hazardous Atmospheric Pollutants	Of the 23 revised "substances requiring priority action" in the report of the Central Environment Council (9th report) in October 2010, emissions to the atmosphere of acrylonitrile, vinyl chloride monomers, chloroform, 1,2-dichloroethane, dichloromethane, and 1,3-butadiene are calculated based on the atmospheric emissions of substances subject to the PRTR Law.

【Industrial Waste】

Industrial Waste Generated	Total amount of the amount of reduction by incineration at each site (difference between incinerated amount and the residue), the amount of landfill at each site and the amount of waste outsourced for external treatment.
Internal Reductions	Amount of reduction by incineration at sites (difference between incinerated amount and the residue).
Internal Landfill	Amount of final landfilled at sites.
Waste Outsourced	Amount of waste treated by external contractors.
External Recycling	Of outsourced waste, the total amount of industrial waste recycled through reuse, recycling, and heat recovery.
External Reductions	Of outsourced waste, the amount obtained by subtracting total incineration residue from the total amount of industrial waste incinerated without heat recovery and reduced in weight.
Volume of Waste Sent to Final Landfill	The total amount of waste outsourced to be sent directly to final landfill and sent to final landfill after outsourced incineration.
Rate of Waste Sent to Final Landfill	Percentage of the total amount of waste outsourced to be sent directly to final landfill and sent to final landfill after outsourced incineration divided by the total amount of industrial waste generated (%).